

In This Issue

**Just Added!**  
**Over 1,480**  
**New Products**

- **Electronic Components**
- **Computer Products**
- **Test Equipment**

Catalog 252  
May 2005

# The Jameco Electronics Catalog

***Great Products.***  
***Awesome Prices.***  
***You'll Be Smiling Too!***

Check out that Jameco Smile!

**JAMECO**<sup>®</sup>  
ELECTRONICS



**[www.Jameco.com](http://www.Jameco.com)**  
**1-800-831-4242**

## New Additions to Jameco's Product Line!

We've added more of the most-needed, most-requested, hottest selections to this catalog: over 1,480 new products! Here are some of the highlights:

### Rabbit Development Kits

Jameco and Rabbit Semiconductor™ have a new relationship, and the first result is 14 new Development Kits in this catalog.



See Pages 13-15

### New! Optical & Illumination

Seeing is believing! We've added hundreds of optoelectronic devices including optocouplers, optoswitches, new ValuePro™

LEDs like the popular bright whites and bright blues, plus our ever-popular ValuePro 7-segment LED displays!



See Pages 51-61

### Microchip Digital Signal Controllers

We continue to expand our line of Microchip microcontrollers with a new, comprehensive family of dsPIC digital signal controllers in this catalog!



See Page 12

### New! Oscillators, Resonators & Crystals

Now you'll find we've beefed up our ever-expanding line of crystals, resonators and oscillators.



See Pages 80-82

### ValuePro™ Capacitors

Make Jameco your one-stop capacitor shop! We've added hundreds of ValuePro™ capacitors, filling out our broad line with the rock-solid reliable caps our customers need most!



See Pages 64-70

### Intel® Embedded CPUs

Jameco just added many of the most popular CPUs from Intel's Embedded processor line.

NEW



See Page 193

### Just Added! e-Lab™

Our range of e-Lab EDExx "building block" ICs is now even broader! Check this section for a Jameco solution to your embedded microcontroller needs!



See Page 33

### New! Mean Well Power Supplies

Need versatile, reliable power? We've got it for less! We've added over 60 Mean Well enclosed power supplies from the new G3 series.



That means a much smaller footprint, tighter power density and Mean Well quality at Jameco prices! See Pages 156-160

### More Buzzers Than Ever

No matter what your application, you can be sure that Jameco has the buzzer you need!



See Page 143

### Just Added! Trimmer Pots

Attention "control" freaks! We've added the 3352T family of Bourns®-equivalent, easy-to-use potentiometers to Jameco's high-quality, low-cost ValuePro line!



See Page 77

### 100's of New Computer Products

We've updated and expanded our computer product offering with more Intel® and Giga-Byte® motherboards, Western Digital drives, Wintec memory modules, graphics cards, drive enclosures, APW rack mount equipment, compact flash memory and more!



See Page 192

### Too Many Power Cords

Check it out! We've added over 70 new ValuePro power cords!



See Page 180 -181

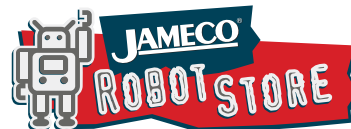
## Now With Over 1,480 New Products

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## Just Acquired! www.RobotStore.com

Jameco just purchased [www.RobotStore.com](http://www.RobotStore.com), and we're planning to have 5 to 6 times more robotics products available by this summer! Our mission will not change... we will search the world and bring to you the best in robotics parts, kits and service. The site is expanding fast, so be sure to visit us frequently.



[www.RobotStore.com](http://www.RobotStore.com)  
1-800-374-5764

### Special Offer – Save 10%

Phone in your first order before May 15, 2005 and receive a 10% discount. Be sure to mention VIP Number JRD.

## Check Out These Money Saving Sample Price Comparisons\*

Take a look through this sampling of recent price differences among our competitors, and calculate the substantial savings!

Pricing will fluctuate, so please be sure and double-check when making purchases. But always remember, with Jameco you'll always get the lowest price!

Product Description	Jameco® Part No.	Jameco Page #	Jameco® Price	Digi-Key® Corp.	Mouser® Electronics	Newark InOne®	Minimum Savings Discount	
74ACT138 IC, DIP Pkg	212038CH	19	\$0.23	\$0.55	\$0.61	\$0.39	\$0.16	41.0%
Cable, RG58/U, 10', BNC-BNC, 50Ω	180822CH	117	\$4.49	\$12.54	—	\$16.30	\$8.05	64.2%
Capacitor, Electrolytic, 470uF, 50VDC, 20%	93825CH	65	\$0.29	\$0.52	\$0.44	\$0.436	\$0.15	33.5%
Capacitor, Mica, 1nF, 100V, 5%	16011CH	67	\$1.19	\$3.16	\$1.85	\$2.52	\$0.66	35.7%
Connector, BNC, Amphenol 31-2221, Rec.	223538CH	115	\$2.89	\$4.18	\$3.90	\$4.18	\$1.01	25.9%
Connector, Centronics, 36-pin Female	159708CH	113	\$0.53	\$4.38	\$2.61	—	\$2.08	79.7%
Connector, D-Sub, 25-pin Male, Metal	15149CH	101	\$0.79	\$2.78	\$2.40	—	\$1.61	67.1%
Fan, 54CFM, 3.63" sq. x 1", 12VDC	319193CH	147	\$7.95	\$31.14	\$30.98	\$27.46	\$19.51	71.0%
LED, White, High-output, 5,500 mcd, T1-3/4	320531CH	58	\$1.09	\$3.00	\$3.02	\$6.64	\$1.91	63.7%
LM317LM IC, SOIC Pkg	193551CH	36	\$0.35	\$0.54	\$0.43	\$0.689	\$0.08	18.6%
Power Supply, Open Frame, 120W, 4 out	196701CH	155	\$28.95	\$245.75	\$76.80	—	\$47.85	62.3%
Power Supply, Table-top, 25W, 2 out	221751CH	169	\$27.95	\$118.00	\$41.14	—	\$13.19	32.1%
RCA Jack, Panel Mount, Right Angle, Yellow	220564CH	98	\$0.45	\$0.61	\$0.53	\$0.735	\$0.08	15.1%
Relay, 4PDT, 5A, 12VDC	291506CH	139	\$4.45	\$6.91	\$6.86	\$8.74	\$2.41	35.1%
Slide Switch, SPDT, 2A @ 28VDC	204142CH	131	\$0.28	\$1.83	\$1.45	\$1.40	\$1.12	80.0%
SN74F138D IC, SOIC Pkg	283186CH	25	\$0.34	\$0.56	—	\$0.441	\$0.10	22.9%
Terminal Block, 12 Position, 12mm	215036CH	119	\$2.59	\$12.45	—	\$6.60	\$4.01	60.8%
Toroid, 150uH, Vertical	208320CH	78	\$4.35	\$6.24	\$8.92	\$6.81	\$1.89	30.3%
Wire, 18awg, Stranded, Black, UL1007	125786CH	89	\$5.79	\$26.89	\$12.65	\$20.61	\$6.86	54.2%

\* This chart is a snapshot of single-unit prices taken from each party's website on March 17, 2005. Prices shown do not reflect added shipping & handling charges or any available discounts.

## Find a Lower Price? We'll Match It, And Then Pay You Another 10%!



Here's a deal to beat all deals: if you ever find a print-advertised price that's lower than an identical item in our catalog, we'll not only match the lower price, we'll beat it by an additional 10%, right down to our cost! No fine print, no questions asked.

At Jameco Electronics, we bring our customers the best products at the absolute lowest prices. And we don't just say it, we guarantee it!

From the president's office to the shipping line,



we all share a dedication to high quality and great value, and that translates into real, meaningful savings for you on every item we carry. Our buyers work tirelessly to bring you prices that are consistently 10% to 20% lower than market prices. And when we score a special deal with our suppliers, we're thrilled to pass even deeper discounts on to you.

The result? Everyone saves, and saves big with Jameco. Guaranteed!



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Caps, Resistors, Potentiometers, Inductors, Crystals, etc.

### Wire & Cable .....84-95

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### Interconnects.....96-121

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### Fans & Cooling.....146-149

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Switching Power Supplies, Wall Adapters, etc.

### Batteries .....183-187

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### Computer Products.....190-205

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### Security .....206-209

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Test & Measurement, Tools, Soldering Equipment, etc.

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## PRICES

Prices are effective 4-11-05.

Prices and discounts are subject to change without notice.



Rabbit Semiconductor and Jameco

World-renowned Rabbit Semiconductor™ joins forces with Jameco to provide you with revolutionary products to optimize your designs! Rabbit specializes in high-performance 8-bit microprocessors and development tools for embedded control, communications, and Ethernet connectivity; and their award-winning solutions are second-to-none in performance and innovation. Combining ground-breaking design and

no-nonsense implementation, their components and modules make a perfect fit for a wide variety of applications, from automated meter-reading devices, to biodefense systems, to retail-support devices. Look no further for a trusted source of these great products! Proven performance from Rabbit Semiconductor and unbeatable service, support, and savings from Jameco add up to a winning combination!

For Rabbit Semiconductor, see pages 13-15.

Microchip DSCs: High-Performance at Low Jameco Prices!

Microchip's dsPIC® Digital Signal Controllers are powerful, versatile digital dynamos that can add a new level of performance and value to your designs! In a single unit, these 16-bit modified Harvard RISC machines combine the control advantages of a high-performance 16-bit microcontroller with the high

computation speed of a fully implemented digital signal processor. All DSCs integrate Flash program memory and most have EEPROM data storage. The result is a tightly coupled, single-chip, single-instruction-stream solution for a wide range of embedded systems applications!

See Microchip dsPIC on page 12.

More Top-of-the-Line Pressure Sensors To Reduce Pressure on the Bottom Line

As designs in consumer products and automotive applications go all-electronic, the shift to micro-electromechanical sensors is moving full steam ahead. For air movement control, level indicators, leak detection, robotics, and industrial control, Freescale has set the standards.

And as always, Jameco delivers the value with new selections in top-quality Freescale pressure sensors! You'll find even more of the most popular, most-requested pressure ranges and packages in the world-renowned Freescale line, right here in these pages, and our expansion of this category will continue in the future. What your designs demand, Jameco delivers!

See page 43 for Freescale Pressure Sensors.

Choose Intel Embedded CPUs at Great Values!

Check out our line-up of industry-leading, embedded CPUs from the gold standard of microprocessors!

Intel has migrated the proven architecture of a range of their most-wanted chips to their embedded product roadmap. These long-life-cycle powerhouses are perfect for your embedded designs and for motherboards with legacy design features. Choose your specs: clock-rate, onboard cache, FSB speed and layout; and then choose the Intel embedded processor you need, at the low Jameco price you want!

See page 193 for Intel's Embedded Processors.

E-Lab ICs: More of What You Asked For!

Our customers have spoken, and we've responded with more outstanding E-Lab driver ICs!

This catalog includes more of the most-needed E-Lab chips, including output controllers, decoder/drivers, LCD interfaces and motor controllers. E-Lab is known for quality and performance, and Jameco delivers these super products with industry-leading service and support at great, guaranteed low-prices!

E-Lab products are on page 33.

Need Reliable, Professional-Grade Table-Top Power? Think Jameco!



Juice-up your designs with reliable, cost-effective table-top power from these value-priced, rock-solid units. Manufactured to exacting tolerances, these UL/CUL/TUV/CB/CE-approved modules are directly equivalent to comparable table-top power supplies from other major power supply manufacturers.

For Table-top Power Supplies, see pages 168-172.

Contact Information

Order Desk 24/7, 365 Days a Year  
Phone: 1-800-831-4242  
Fax: 1-800-237-6948  
E-mail: [sales@Jameco.com](mailto:sales@Jameco.com)

Website [www.Jameco.com](http://www.Jameco.com)

International Order Desk  
Phone: 650-592-8097  
Fax: 650-592-2503  
E-mail: [international@Jameco.com](mailto:international@Jameco.com)

Technical Support  
Phone: 1-800-831-4242  
E-mail: [tech@Jameco.com](mailto:tech@Jameco.com)

Customer Service  
Phone: 1-800-831-4242  
E-mail: [custservice@Jameco.com](mailto:custservice@Jameco.com)

Credit Department  
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E-mail: [credit@Jameco.com](mailto:credit@Jameco.com)

International Toll-Free Fax  
Columbia: 980-9-136748  
Mexico: 001-800-593-1449  
Indonesia: 1-803-015-237-6948  
Brazil: 000-817-455-6119  
New Zealand: 080-044-0470

Mean Well Power Supplies: The Next Generation – Smaller, More Reliable, Less Expensive!

Rock solid, reliable and robust power supplies that deliver top performance in demanding applications: that's the new G3 Series from Mean Well!

The G3 series is Mean Well's 3rd generation of enclosed switching power supplies, optimized to meet the growing demand of your compact, size-restrictive applications. Design innovations allow them to pack high-efficiency and top performance into miniature-size units. They're small, but they're tough! These power supplies are rated for high temperatures up to 70°C, and all use a 105°C input electrolytic capacitor that safeguards operation over a long lifetime of reliable operation.

The G3's are built to last! Each unit receives a full burn-in test under full rated power, and is equipped with short-circuit/

overload/over-voltage protection. Their universal AC input (88-264VAC @ 47-63Hz) can handle a 300VAC input surge for a full 5 seconds. In short, you can count on the G3 series in all kinds of environments, from unstable AC sources to high-humidity installations. All carry a 3-year warranty, and boast a MTBF rating of almost 310,000 hours.

We offer Mean Well supplies from 35W to 150W, and all comply with the EN61000-6-2 heavy-industry EMS level. Whether you're designing for general electronic applications, moving signs, factory automation, communication apps, electro-mechanical devices or security systems, you can trust Jameco and Mean Well to deliver the power to perform!

Meanwell G3 series enclosed power supplies are on pages 156-160.

Heat Dissipation That Won't "Sink" Your Budget!

Take the heat away from your sensitive components as you take the heat off your bottom line!

ValuePro heat sinks are drop-in equivalents for the most-used models on the market. Simply use our convenient cross-reference to match your needs against equivalent Thermalloy and other leading manufacturers. Ready to perform with TO-type packages (for linear and transistor ICs), these heat-sinks are available in many different types and configurations. They're tops in heat-dissipation, and because they're from Jameco, rest assured that they're also unbeatable in price!

See page 46 for Heat Sinks.

Quality Power Cords, Overpowering Values!

Top-quality, high-performance power cords are only a toll-free phone call away!

Jameco ValuePro cords are selected to provide the trusted power you need at a substantial savings over other products. All are Volex® equivalent and they're available in the most popular, most-needed configurations and materials. When you think power cords, think Jameco ValuePro and plug-in to the savings now!

For expanded line of Power Cords, see page 180-181.



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International Order Desk  
Phone: 650-592-8097  
Fax: 650-592-2503  
E-mail: [international@Jameco.com](mailto:international@Jameco.com)

Technical Support  
Phone: 1-800-831-4242  
E-mail: [tech@Jameco.com](mailto:tech@Jameco.com)

Customer Service  
Phone: 1-800-831-4242  
E-mail: [custservice@Jameco.com](mailto:custservice@Jameco.com)

Credit Department  
Phone: 650-592-8097  
E-mail: [credit@Jameco.com](mailto:credit@Jameco.com)

International Toll-Free Fax  
Columbia: 980-9-136748  
Mexico: 001-800-593-1449  
Indonesia: 1-803-015-237-6948  
Brazil: 000-817-455-6119  
New Zealand: 080-044-0470

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For expanded line of Power Cords, see page 180-181.




Great Optoisolators,  
Great Prices,  
Greater Selection!

**JAMECO ValuePro** Thumb through this catalog's new Optoisolator section and you'll see an updated, broad selection organized in a new, easy-to-find layout. You asked for more choices, and we've delivered! We have more than doubled the number of optoisolators in our catalog to cover all your high-voltage isolation requirements. These new additions are in the most popular opto categories/series, including 4Nxx, 6Nxx, CNY17xx, H11xx, MCTxx, MOCxx, and PS25xx! We have also doubled the number of our slotted optical switches in the popular H11xx and H22xx series.

For ValuePro Optoisolators, see page 54.

**Trust Intel® Architecture-Based Motherboards, with On-Board Jameco Value!**



Designers of embedded systems face many demands, but two stand out: you need to choose trusted components that meet service and support objectives, and you need to control costs. When you choose Intel architecture, you'll get a board with the features and reliability that you need at a cost you can afford. And when you choose Jameco, you'll get the best price, service, and in-stock availability to keep your designs running well ahead of the competition!

For expanded motherboard selection, see page 192.



Glow For It!  
Choose Jameco For All Your LED Needs!

**JAMECO ValuePro** Your eyes will light up when you see our new, expanded selection of high-quality, high-performance ValuePro LEDs! We've doubled our selection in this catalog, offering 100% greater range of standard, medium, and high output LEDs. But that's not all! We've also added surface mount, 5mm blinking, and



100mm packages to our line of LEDs. And as always, you can rely on Jameco for unbeatable prices and trusted, in-stock inventory. For all your LED needs, ValuePro is first in performance, first in service, and first in low-cost, high-quality components!

We've also added more than 40 new 7-segment displays to our ValuePro offering. See pgs 59-60.



For ValuePro LEDs, see pages 55-61.

This Expanded Selection Will  
"Resonate" With You!

In this catalog, we've more than tripled our selection of top-quality oscillators and crystals! In addition, you'll find a wider, hand-picked section of ceramic resonators to perfectly complement the other Jameco components in your designs. Every day, our buyers search the world's most respected manufacturers to bring our customers the



very best, most needed components in this high-demand product category. We're continually expanding our offerings, so whether you need tuning forks, monolithic filters, crystals (in a variety of packages, including surface-mount) or oscillators, Jameco is working to be your one-stop, top-value source!



See pages 80-82 for Crystals, Oscillators and Resonators.

More ValuePro Capacitors, More Choices,  
More Savings!

**JAMECO ValuePro** Take "charge" of your bottom-line with Jameco's expanding line of quality ValuePro capacitors!



In every catalog we're expanding the selection of capacitors in our ValuePro line, adding the components our customers need to optimize their designs for quality and

cost-efficiency. This time we've added even more than before, with popular caps in more values, styles and sizes. Non-polarized, electrolytic radial and electrolytic axial, monolithic ceramic; name the application, and chances are we've got a ValuePro capacitor to fill the bill!



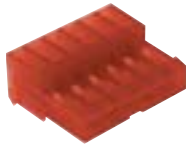
For ValuePro Capacitors, see pages 64-70.



Make the ValuePro Connection!

**JAMECO ValuePro** Connectors have a simple role in many designs, but their flawless functioning is vital. You need to trust their durability, their fit, their feel and their integrity. And for great connectors, you know you can always trust in Jameco! Our new ValuePro connectors meet our high standards for quality! Designed as value-equivalents to industry-leading

AMP connectors, these sets are perfect matches in form and function to the best known connectors on the market today. And as our line continues to expand, we'll carry even more of the most popular sizes and configurations to help you make all your critical connections!



See page 104-105 for ValuePro Connectors.

Rack 'em Up with APW for Quality,  
Efficiency and Economy!

Organize, simplify and optimize your rack-mounted components with these innovative solutions from APW!

If speed is what you need, choose Pioneer Pre-Configured Rackmount Enclosures. These quick-to-deploy Pioneer Datacom Kits deliver pre-configured enclosures with one easy-to-order item number. Choose from four different kit combos, all with certified APW durability, compatibility and ease-of-access.



Wall-mount rack system, 48" tall.

For unparalleled all-in-one convenience, you can't beat Pioneer Quicksilver Rackmount Enclosure Kits. Fully loaded and ready to plug and play, Quicksilver is available in three heights (25U, 40U and 45U). Everything is there, right where you need it, right out of the box!



Space problems? No problem! Mini-Max Wall Mount Enclosures are the ideal

solution for space-constrained applications. These convenient, flexible 19" EIA rack-mount enclosures let you manage and secure critical network wiring, hubs, concentrators, routers, patch panels, and audio/video equipment in minimal space!

If you're battling a budget, we've got the answer: APW's Modular Networking Frames.

These heavy-duty, low-cost frames offer secure rack-mount storage at a fraction of the cost of a fully enclosed cabinet.

All of these enclosures are designed with APW's renowned quality and stability, and all come with the service, support and low-price guarantee of Jameco!

For APW Rack Mount Products, see pages 190-191 and 265.

Surface Mount Electromechanical Buzzers

We've doubled our offering of buzzers and transducers in this catalog. We added magnetic transducers/buzzers, piezo buzzers/sirens, mechanical/electromechanical buzzers and surface mount electromechanical buzzers. Perfect for applications that require small components and high sound outputs. See page 143 for additional product listings.



Part Number	Manufacture Cross Ref. No.	Operating Volt. (Vp-p/mA)	Volt. Range (Vp-p)	Freq. (Hz)	Sound (dB)	Dimensions (mm)	Pricing			
							1	10	100	1000
335388CH	AST500	1.5	1.2 - 3	2400	85	12.8 sq. x 10 H	\$2.95	\$2.85	\$2.72	\$2.48
335417CH	AST605	5/40	4 - 8	2400	87	12.6 sq. x 7 H	2.29	2.28	2.27	2.16
335345CH	ASI301	5/30	4 - 7	2400	90	12.6 sq. x 10 H	2.99	2.78	2.59	2.24
335353CH	ASI401	12/30	8 - 15	2400	90	12.6 sq. x 10 H	1.79	1.75	1.63	1.49
335370CH	AST200	3/80	2 - 5	2731	85	8.7 sq. x 4.2 H	3.65	3.30	3.00	2.70
335441CH	AST800	3	2 - 4.5	3200	87	11 W x 14 D x 3.5 H	5.65	5.49	5.20	4.74

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74ACT-CMOS Logic (DIP/SOIC)	18, 19
74AHC-CMOS Logic (DIP/SOIC)	20
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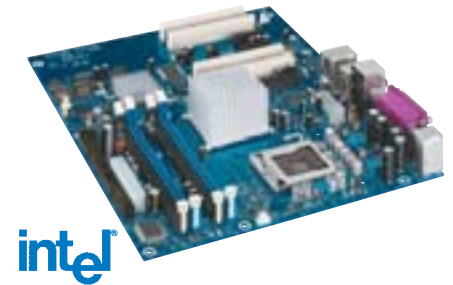


Great Optoisolators,  
Great Prices,  
Greater Selection!

**JAMECO ValuePro** Thumb through this catalog's new Optoisolator section and you'll see an updated, broad selection organized in a new, easy-to-find layout. You asked for more choices, and we've delivered! We have more than doubled the number of optoisolators in our catalog to cover all your high-voltage isolation requirements. These new additions are in the most popular opto categories/series, including 4Nxx, 6Nxx, CNY17xx, H11xx, MCTxx, MOCxx, and PS25xx! We have also doubled the number of our slotted optical switches in the popular H11xx and H22xx series.

For ValuePro Optoisolators, see page 54.

**Trust Intel®  
Architecture-Based  
Motherboards, with  
On-Board Jameco  
Value!**



Designers of embedded systems face many demands, but two stand out: you need to choose trusted components that meet service and support objectives, and you need to control costs. When you choose Intel architecture, you'll get a board with the features and reliability that you need at a cost you can afford. And when you choose Jameco, you'll get the best price, service, and in-stock availability to keep your designs running well ahead of the competition!

For expanded motherboard selection, see page 192.



Glow For It!  
Choose Jameco For All Your LED Needs!

**JAMECO ValuePro** Your eyes will light up when you see our new, expanded selection of high-quality, high-performance ValuePro LEDs! We've doubled our selection in this catalog, offering 100% greater range of standard, medium, and high output LEDs. But that's not all! We've also added surface mount, 5mm blinking, and



100mm packages to our line of LEDs. And as always, you can rely on Jameco for unbeatable prices and trusted, in-stock inventory. For all your LED needs, ValuePro is first in performance, first in service, and first in low-cost, high-quality components!

We've also added more than 40 new 7-segment displays to our ValuePro offering. See pgs 59-60.



For ValuePro LEDs, see pages 55-61.

This Expanded Selection Will  
"Resonate" With You!

In this catalog, we've more than tripled our selection of top-quality oscillators and crystals! In addition, you'll find a wider, hand-picked section of ceramic resonators to perfectly complement the other Jameco components in your designs. Every day, our buyers search the world's most respected manufacturers to bring our customers the



very best, most needed components in this high-demand product category. We're continually expanding our offerings, so whether you need tuning forks, monolithic filters, crystals (in a variety of packages, including surface-mount) or oscillators, Jameco is working to be your one-stop, top-value source!



See pages 80-82 for Crystals, Oscillators and Resonators.

More ValuePro Capacitors, More Choices,  
More Savings!

**JAMECO ValuePro** Take "charge" of your bottom-line with Jameco's expanding line of quality ValuePro capacitors!

In every catalog we're expanding the selection of capacitors in our ValuePro line, adding the components our customers need to optimize their designs for quality and



For ValuePro Capacitors, see pages 64-70.

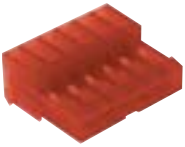
cost-efficiency. This time we've added even more than before, with popular caps in more values, styles and sizes. Non-polarized, electrolytic radial and electrolytic axial, monolithic ceramic; name the application, and chances are we've got a ValuePro capacitor to fill the bill!



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Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## EPROM

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
39909CH	2708❖	DIP-24	1k x 8 450ns (±5V, +12V) .....	\$4.99	\$4.29	\$3.19
33611CH	TMS2716❖	DIP-24	2k x 8 450ns (±5V, +12V) .....	2.25	1.99	1.79
40002CH	2716❖	DIP-24	2k x 8 450ns (25V) .....	4.09	3.69	3.29
39706CH	27C16❖	DIP-24	2k x 8 450ns (25V) CMOS .....	6.99	5.99	4.99
308662CH	2716A-2	DIP-24	2k x 8 200ns (21V) .....	6.79	6.09	5.59
40011CH	2716-1❖	DIP-24	2k x 8 350ns (25V) .....	6.49	5.89	5.39
265931CH	27C16-200	DIP-24	2k x 8 200ns UVPROM (5V) .....	3.99	3.59	2.99
265965CH	27C16-150	DIP-24	2k x 8 150ns UVPROM (5V) .....	7.19	5.49	4.69
40096CH	2732❖	DIP-24	4k x 8 450ns (25V) .....	6.49	5.49	4.19
39765CH	27C32❖	DIP-24	4k x 8 450ns (25V) CMOS .....	5.49	4.19	2.89
40133CH	2732A-45❖	DIP-24	4k x 8 450ns (21V) .....	3.99	3.69	3.29
33591CH	TMS2532A❖	DIP-24	4k x 8 450ns (21V) .....	3.99	3.59	3.19
114876CH	2732B❖	DIP-24	4k x 8 450ns (12.5V) .....	4.19	3.79	3.39
40125CH	2732A-25❖	DIP-24	4k x 8 250ns (21V) .....	4.99	4.49	3.99
40109CH	2732A-20❖	DIP-24	4k x 8 200ns (21V) .....	6.49	5.99	5.49
265990CH	27C32-200	DIP-24	4k x 8 200ns UVPROM (5V) .....	5.99	4.99	3.99
266001CH	27C32-150	DIP-24	4k x 8 150ns UVPROM (5V) .....	6.99	5.99	4.99
40205CH	2764-25❖	DIP-28	8k x 8 250ns (21V) .....	5.29	4.79	4.29
40248CH	2764A-25❖	DIP-28	8k x 8 250ns (12.5V) .....	3.99	3.69	3.09
39845CH	27C64-25❖	DIP-28	8k x 8 250ns (12.5V) CMOS .....	4.49	4.09	3.79
40192CH	2764-20❖	DIP-28	8k x 8 200ns (21V) .....	5.29	4.79	4.29
40230CH	2764A-20❖	DIP-28	8k x 8 200ns (12.5V) .....	4.49	4.09	3.69
74608CH	27C64-20❖	DIP-28	8k x 8 200ns (12.5V) CMOS .....	4.69	4.29	3.79
39829CH	27C64-15❖	DIP-28	8k x 8 150ns (12.5V) CMOS .....	3.79	3.49	2.99
105304CH	27C64-12❖	DIP-28	8k x 8 120ns (12.5V) CMOS .....	6.49	5.99	5.49
266036CH	27C64-100	DIP-28	8k x 8 100ns UVPROM (5V) .....	4.09	3.59	2.69
266044CH	27C64-70	DIP-28	8k x 8 70ns UVPROM (5V) .....	5.39	5.19	4.39
266052CH	CY7C264-55WC	DIP-24	8k x 8 55ns UVPROM (5V) .....	6.49	5.99	5.49
39933CH	27128-25❖	DIP-28	16k x 8 250ns (21V) .....	4.29	3.99	3.49
39984CH	27128A-25❖	DIP-28	16k x 8 250ns (12.5V) .....	4.49	4.09	3.69
39685CH	27C128-25❖	DIP-28	16k x 8 250ns (12.5V) CMOS .....	3.99	3.59	3.29
39968CH	27128A-20❖	DIP-28	16k x 8 200ns (12.5V) .....	4.69	4.19	3.79
101101CH	27C128-20❖	DIP-28	16k x 8 200ns (12.5V) CMOS .....	4.39	3.95	3.56
39950CH	27128A-15❖	DIP-28	16k x 8 150ns (12.5V) .....	4.49	3.99	3.59
39677CH	27C128-15❖	DIP-28	16k x 8 150ns (12.5V) CMOS .....	4.29	3.89	3.49
87935CH	27C128-12❖	DIP-28	16k x 8 120ns (12.5V) CMOS .....	4.69	4.09	3.69
266061CH	27C128-100	DIP-28	16k x 8 100ns (12Vpp) .....	4.89	4.29	3.89
149665CH	27C128-70	DIP-28	16k x 8 70ns (12.5V) .....	4.89	4.29	3.89
40061CH	27256-25❖	DIP-28	32k x 8 250ns (12V) .....	3.19	2.99	2.69
39731CH	27C256-25❖	DIP-28	32k x 8 250ns (12.5V) CMOS .....	3.19	2.99	2.69
40045CH	27256-20❖❖	DIP-28	32k x 8 200ns (12.5V) .....	3.69	3.29	2.99
39722CH	27C256-20❖	DIP-28	32k x 8 200ns (12.5V) CMOS .....	2.59	2.49	2.19
40037CH	27256-15❖	DIP-28	32k x 8 150ns (12.5V) .....	3.29	3.09	2.79
39714CH	27C256-15❖	DIP-28	32k x 8 150ns (12.5V) CMOS .....	2.09	1.79	1.59
65904CH	27C256-12❖	DIP-28	32k x 8 120ns (12.5V) CMOS .....	2.09	1.99	1.79
112740CH	27C256-10❖	DIP-28	32k x 8 100ns (12.5V) CMOS .....	3.29	3.09	2.59
140476CH	27C256-70❖	DIP-28	32k x 8 70ns (12.5V) CMOS .....	3.39	3.19	2.99
266079CH	27C256-55	DIP-28	32k x 8 55ns UVPROM (5V) .....	4.99	4.79	4.29
40168CH	27512-25❖	DIP-28	64k x 8 250ns (12.5V) .....	3.69	3.39	3.09
39802CH	27C512-25❖	DIP-28	64k x 8 250ns (12.5V) CMOS .....	4.75	4.39	3.95
40150CH	27512-20❖	DIP-28	64k x 8 200ns (12.5V) .....	2.69	2.39	2.19
39790CH	27C512-20❖	DIP-28	64k x 8 200ns (12.5V) CMOS .....	3.09	2.89	2.59
39781CH	27C512-15❖	DIP-28	64k x 8 150ns (12.5V) CMOS .....	2.09	1.99	1.79
39773CH	27C512-12❖	DIP-28	64k x 8 120ns (12.5V) CMOS .....	1.69	1.59	1.49
131959CH	27C512-10❖	DIP-28	64k x 8 100ns (12.5V) CMOS .....	3.19	2.99	2.49
175206CH	27C512-90❖	DIP-28	64k x 8 90ns (12.5V) CMOS .....	2.79	2.59	2.39
203625CH	27C512-70	DIP-28	64k x 8 70ns (12.5V) CMOS .....	2.89	2.49	2.19
266087CH	27C512-55	DIP-28	64k x 8 55ns (12Vpp) .....	3.59	3.39	3.19
203617CH	27C512-45	DIP-28	64k x 8 45ns (12.5V) CMOS .....	4.09	3.79	3.49
118148CH	27C1024-15	DIP-40	64k x 16 150ns (12.5V) CMOS .....	5.29	4.79	4.39
203641CH	27C1024-12	DIP-40	64k x 16 120ns (12.5V) CMOS .....	5.29	4.79	4.39
203633CH	27C1024-80	DIP-40	64k x 16 80ns (12.5V) CMOS .....	5.29	4.79	4.39
39669CH	27C010-20❖	DIP-32	128k x 8 200ns (12.5V) CMOS .....	2.39	2.29	1.99
39651CH	27C010-15❖	DIP-32	128k x 8 150ns (12.5V) CMOS .....	2.19	1.99	1.75
74624CH	27C010-12❖	DIP-32	128k x 8 120ns (12.5V) CMOS .....	2.09	1.99	1.79
79231CH	27C010-10❖	DIP-32	128k x 8 100ns (12.5V) CMOS .....	2.39	1.99	1.75

❖ Refurbished = Backed by Jameco ❖ Blue Part No. = Limited Quantity Available

## EPROM (Continued)

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
137699CH	27C010-80❖	DIP-32	128k x 8 80ns (12.5V) CMOS .....	\$3.99	\$3.59	\$2.99
146149CH	27C010-70❖	DIP-32	128k x 8 70ns (12.5V) CMOS .....	2.49	2.29	2.09
266095CH	27C010-55	DIP-32	128k x 8 55ns (12Vpp) .....	5.29	4.89	4.49
137701CH	27C010-45❖	DIP-32	128k x 8 45ns (12.5V) CMOS .....	3.99	3.19	2.89
65681CH	27C020-20❖	DIP-32	256k x 8 200ns (12.5V) CMOS .....	4.99	4.59	3.99
65699CH	27C020-15❖	DIP-32	256k x 8 150ns (12.5V) CMOS .....	5.29	4.99	4.49
78852CH	27C020-12❖	DIP-32	256k x 8 120ns (12.5V) CMOS .....	5.29	4.89	4.49
156267CH	27C020-10	DIP-32	256k x 8 100ns (12.5V) CMOS .....	4.09	3.89	3.49
203650CH	27C020-80	DIP-32	256k x 8 80ns (12.5V) CMOS .....	4.39	3.99	3.89
266108CH	27C020-70	DIP-32	256k x 8 70ns UVPROM (5V) .....	4.89	4.49	3.39
266116CH	27C020-55	DIP-32	256k x 8 55ns UVPROM (5V) .....	6.89	6.55	6.21
127933CH	27C4096-12	DIP-40	256k x 16 120ns (12.5V) CMOS .....	9.29	8.69	7.89
85462CH	27C040-15❖	DIP-32	512k x 8 150ns (12.5V) CMOS .....	6.59	6.09	5.59
102293CH	27C040-12❖	DIP-32	512k x 8 120ns (12.5V) CMOS .....	6.59	6.09	5.59
111780CH	27C040-10❖	DIP-32	512k x 8 100ns (12.5V) CMOS .....	7.09	6.49	5.89
203676CH	27C040-80	DIP-32	512k x 8 80ns (12.5V) CMOS .....	7.39	6.79	5.01
266124CH	27C040-70	DIP-32	512k x 8 70ns UVPROM (5V) .....	6.05	5.19	5.15
266132CH	27C040-55	DIP-32	512k x 8 55ns UVPROM (5V) .....	9.49	8.59	7.59
203668CH	27C040-45	DIP-32	512k x 8 45ns (12.5V) CMOS .....	9.99	9.09	8.09
140003CH	27C080-12❖	DIP-32	1M x 8 120ns (12.5V) CMOS .....	12.59	11.59	10.59
265842CH	27C800-12	DIP-42	1M x 8 120ns UVPROM (5V) .....	12.59	11.59	10.59
156275CH	27C080-10❖	DIP-32	1M x 8 100ns (12.5V) CMOS .....	12.99	11.99	10.99
203684CH	27C080-90	DIP-32	1M x 8 90ns (12.5V) CMOS .....	12.99	11.99	10.99
156283CH	27C160-10	DIP-42	2M x 8 100ns (12.5V) CMOS .....	19.99	18.99	17.99

❖ Refurbished = Backed by Jameco

See EPROM programmers and erasers on pages 248 &amp; 249

## EPROM Accessories

Part No.	Cross Ref.	Description	1	5
13864CH	CF2	Conductive foam (12" x 24" x .25") hard black .....	\$9.29	\$8.35
66042CH	DE1	UVP portable EPROM eraser, pg 249 .....	54.95	49.95
15712CH	DE4	8-chip UV-EPROM eraser, pg 249 .....	119.95	109.95

## EEPROM

DIP  SOIC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
276584CH	24C00	SOIC-8	16 x 8 Serial .....	\$3.32	\$3.31	\$2.29
276568CH	24C00	DIP-8	16 x 8 Serial .....	.26	.25	.23
200627CH	24C44	DIP-8	16 x 16 Serial CMOS .....	1.99	1.79	1.61
276955CH	93C46	SOIC-8	64 x 16 3-wire serial .....	.37	.34	.29
102058CH	93C46	DIP-8	64 x 16 Serial (5V) .....	.35	.30	.22
276621CH	24C01	SOIC-8	128 x 8 2-wire serial .....	.29	.27	.20
276592CH	24C01	DIP-8	128 x 8 2-wire serial .....	.36	.29	.25
276971CH	93C56	SOIC-8	128 x 16 3-wire serial .....	.54	.50	.41
108855CH	93C56	DIP-8	128 x 16 Serial (5V) .....	.69	.54	.39
276630CH	24C02	SOIC-8	256 x 8 2-wire serial .....	.37	.36	.27
108839CH	24C02P	DIP-8	256 x 8 Serial CMOS .....	.47	.40	.30
276980CH	93C66	SOIC-8	256 x 16 3-wire serial .....	.37	.36	.32
200598CH	93C66	DIP-8	256 x 16 Serial (5V) .....	.69	.62	.55
276648CH	24C04	SOIC-8	512 x 8 2-wire serial .....	.34	.27	.24
108847CH	24C04P	DIP-8	512 x 8 Serial CMOS .....	.89	.79	.69
276664CH	24C08	SOIC-8	1k x 8 2-wire serial .....	.32	.31	.29
200547CH	24C08-10	DIP-8	1k x 8 Serial CMOS .....	<del>\$</del> .89	.75	.59
277018CH	93C86	SOIC-8	1k x 16 Microwire serial .....	.51	.39	.36
200601CH	93C86	DIP-8	1k x 16 Serial (5V) .....	.69	.62	.55
276681CH	24C16	SOIC-8	2k x 8 2-wire serial .....	.45	.42	.37
200555CH	24C16-10	DIP-8	2k x 8 Serial CMOS .....	1.19	1.05	.79
276699CH	28C16	SOIC-24	2k x 8 Parallel .....	2.35	1.91	1.69
74691CH	28C16A-25	DIP-24	2k x 8 250ns (5V) CMOS .....	3.99	3.69	3.39
276701CH	28C17	DIP-28	2k x 8 Parallel .....	2.29	2.05	1.95
40416CH	2817A-25❖	DIP-28	2k x 8 200ns 5V read/write .....	7.95	7.15	6.49
276728CH	24C32	SOIC-8	4k x 8 2-wire serial .....	.56	.55	.48
200563CH	24C32-10	DIP-8	4k x 8 Serial CMOS .....	1.79	1.69	1.39
276744CH	24C64	SOIC-8	8k x 8 2-wire serial .....	.66	.64	.57
200619CH	24C65	DIP-8	8k x 8 Serial CMOS .....	1.89	1.69	1.49

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Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## EEPROM (Continued)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
276752CH	28C64	SOIC-28	8k x 8 EEPROM	\$3.69	\$3.49	\$3.43
74827CH	28C64A-25	DIP-28	8k x 8 250ns, 5V CMOS	4.49	4.05	3.65
40475CH	2865A	DIP-28	8k x 8 250ns 5V read/write	4.95	4.49	4.05
276787CH	24C128	SOIC-8	16k x 8 2-wire serial	1.05	.99	.89
200571CH	24C128-10	DIP-8	16k x 8 Serial CMOS	1.85	1.48	1.31
276808CH	24C256	SOIC-8	32k x 8 2-wire serial	1.45	1.41	1.25
200580CH	24C256-10	DIP-8	32k x 8 Serial CMOS	3.19	2.39	2.15
276816CH	28C256	SOIC-28	32k x 8 Paged parallel CMOS	8.49	7.69	7.05
74878CH	28C256-25	DIP-28	32k x 8 250ns CMOS	8.75	7.45	5.59
74843CH	28C256-15	DIP-28	32k x 8 150ns CMOS	8.99	6.89	6.19
276875CH	24C512	SOIC-8	64k x 8 2-wire serial CMOS	2.65	2.51	2.29
276832CH	24C512	DIP-8	64k x 8 2-wire serial CMOS	2.59	2.39	1.99
276921CH	24C1024	SOIC-8	128k x 8 2-wire serial CMOS	7.59	5.79	5.29
276912CH	24C1024	DIP-8	128k x 8 2-wire serial CMOS	6.79	5.19	4.69
276947CH	28C010	PLCC-32	128k x 8 Paged parallel CMOS	50.95	23.59	15.89
242253CH	28C010-15	DIP-32	128k x 8 150ns, 5V CMOS	33.09	30.84	28.27

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## OTP/PROM

Part No.	Cross Ref.	Pkg.	Description	1	10	100
48531CH	74S188	DIP-16	32 x 8 Open collector (27S18)	\$4.39	\$3.95	\$3.45
48717CH	74S288	DIP-16	32 x 8 Tri-st. (27S19/TBP18S030N)	7.39	6.39	5.49
27844CH	N82S23	DIP-16	32 x 8 PROM (OC) (27S18)	5.99	5.39	4.89
27764CH	N82S123	DIP-16	32 x 8 PROM tri-state (27S19)	8.89	8.49	8.09
48696CH	74S287	DIP-16	256 x 4 Tri-state (TBP24S10N)	8.95	7.85	7.09
48805CH	74S387	DIP-16	256 x 4 Open collector (TBP24A10N)	3.09	2.79	2.55
27772CH	N82S126	DIP-16	256 x 4 PROM (OC) (27S20)	10.95	10.39	9.85
27781CH	N82S129	DIP-16	256 x 4 PROM tri-state (27S21)	9.95	9.45	8.99
48910CH	74S571	DIP-16	512 x 4 Tri-state (27S13)	5.69	5.45	4.95
27799CH	N82S131	DIP-16	512 x 4 PROM tri-state (27S13)	7.99	6.99	5.99
48928CH	74S573	DIP-18	1k x 4 Tri-state (27S33)	3.39	2.89	2.59
27801CH	N82S137	DIP-18	1k x 4 PROM tri-state (27S33)	6.95	6.25	5.65
27810CH	N82S181	DIP-24	1k x 8 Bipolar PROM tri-state	6.59	5.59	4.89
27828CH	N82S185	DIP-18	2k x 4 PROM tri-state	3.89	3.19	3.09
27836CH	N82S191	DIP-24	2k x 8 PROM tri-state	8.95	7.85	7.15
266212CH	27C64A-20	PLCC-32	8k x 8 200ns CMOS	2.19	2.09	1.69
266247CH	27C256-20	PLCC-32	32k x 8 200ns CMOS	1.59	1.39	1.29
266255CH	27C256-15	PLCC-32	32k x 8 150ns CMOS	1.69	1.49	1.39
266280CH	27C256-10	PLCC-32	32k x 8 100ns CMOS	1.99	1.79	1.69
266319CH	27C256-70	PLCC-32	32k x 8 70ns CMOS	2.09	1.99	1.89
266327CH	27C256-55	PLCC-32	32k x 8 55ns CMOS	2.39	2.29	1.89
266335CH	27C512-20	PLCC-32	64k x 8 200ns CMOS	1.79	1.69	1.49
266343CH	27C512-15	PLCC-32	64k x 8 150ns CMOS	1.89	1.79	1.59
203730CH	27C512-10 PLCC	PLCC-32	64k x 8 100ns (12.5V) CMOS	1.99	1.89	1.79
203692CH	27C512-10 OTP	DIP-28	64k x 8 100ns (12.5V) CMOS	2.19	1.99	1.89
266351CH	27C512-70	PLCC-32	64k x 8 70ns CMOS	2.29	2.19	1.99
266386CH	27C512-55	PLCC-32	64k x 8 55ns CMOS	2.49	2.39	2.19
266394CH	27C010-20	PLCC-32	128k x 8 200ns CMOS	1.49	1.29	1.19
266790CH	27C010-15	PLCC-32	128k x 8 150ns CMOS	1.59	1.39	1.29
203705CH	27C010-10 OTP	DIP-32	128k x 8 100ns (12.5V) CMOS	2.29	2.19	1.99
203748CH	27C010-10 PLCC	PLCC-32	128k x 8 100ns (12.5V) CMOS	2.09	1.89	1.65
266802CH	27C010-70	PLCC-32	128k x 8 70ns CMOS	2.29	2.19	1.99
266811CH	27C010-55	PLCC-32	128k x 8 55ns CMOS	2.39	1.57	1.55
266888CH	27C020-15	PLCC-32	256k x 8 150ns CMOS	3.89	3.69	3.29
203713CH	27C020-10 OTP	DIP-32	256k x 8 100ns (12.5V) CMOS	3.69	3.49	3.19
203756CH	27C020-10 PLCC	PLCC-32	256k x 8 100ns (12.5V) CMOS	3.79	3.69	3.29
266853CH	27C020-20	PLCC-32	256k x 8 200ns (12V) CMOS	3.69	3.49	3.19
267101CH	27C020-70	PLCC-32	256k x 8 70ns CMOS	3.89	3.79	3.19
267160CH	27C040-15	PLCC-32	512k x 8 150ns CMOS	5.49	4.89	4.69
203764CH	27C040-10 PLCC	PLCC-32	512k x 8 100ns (12.5V) CMOS	5.95	5.52	5.14
203721CH	27C040-12 OTP	DIP-32	512k x 8 120ns (12.5V) CMOS	4.79	4.37	3.95
267303CH	27C080-10	PLCC-32	1M x 8 100ns CMOS	9.99	8.89	7.69
267215CH	27C080-15	PLCC-32	1M x 8 150ns (12V) CMOS	7.65	7.25	6.55

Just Added! Dallas 87C/89C MCU Series see page 43.

## Flash Memory

Part No.	Cross Ref.	Pkg.	Description	1	10	100
242552CH	29C512-12	DIP-32	64k x 8 120ns (5V) CMOS	\$4.59	\$3.69	\$3.52
242561CH	29F512-90	DIP-32	64k x 8 90ns (5V) CMOS	4.69	3.89	3.59
74771CH	28F010-15	DIP-32	128k x 8 150ns (12V) CMOS	6.95	6.25	5.65
242587CH	29F010-120	DIP-32	128k x 8 120ns (5V) CMOS	3.95	3.65	3.15
242595CH	29F010-90	DIP-32	128k x 8 90ns (5V) CMOS	4.39	4.09	3.79
242608CH	29F010-70	DIP-32	128k x 8 70ns (5V) CMOS	6.09	4.99	4.49
74835CH	28F020-15	DIP-32	256k x 8 150ns (12V) CMOS	7.95	7.15	6.45
242616CH	29F020-12	DIP-32	256k x 8 120ns (5V) CMOS	6.89	6.54	6.22
242624CH	29F020-90	DIP-32	256k x 8 90ns (5V) CMOS	5.09	4.62	4.20
242659CH	29F040-120	DIP-32	512k x 8 120ns (5V) CMOS	8.95	8.65	8.25
242667CH	29F040-90	DIP-32	512k x 8 90ns (5V) CMOS	12.05	11.45	10.85
277211CH	29F800-70	TSOP-48	1M x 8 70ns (5V) top boot	3.15	2.75	2.09
277261CH	29F800-70	TSOP-48	1M x 8 70ns (5V) bottom boot	6.95	6.59	6.29
277270CH	29F800-120	TSOP-48	1M x 8 120ns (5V) top boot	3.69	3.29	3.09
277288CH	29F800-120	TSOP-48	1M x 8 120ns (5V) bottom boot	7.35	6.59	5.95
277448CH	28F128-150	TSOP-56	16M x 8 150ns (5V)	22.69	19.09	15.39



## ST Flash Memory

NEW

Part No.	Cross Ref.	Pkg.	Description	1	10	100
321592CH	M25P05-AVMN6	SOIC-8	64k x 8 3V w/ 40MHz SPI bus interface	\$1.49	\$1.40	\$1.06
321605CH	M25P10-AVMN6	SOIC-8	128k x 8 3V w/ 40MHz SPI bus interface	1.69	1.42	1.24
321648CH	M25P20-AVMN6	SOIC-8	256k x 8 3V w/ 40MHz SPI bus interface	1.95	1.64	1.49
321664CH	M25P40-AVMN6	SOIC-8	512k x 8 3V w/ 40MHz SPI bus interface	3.05	2.88	2.74
321672CH	M25P80-AVMN6	SOIC-8	1M x 8 3V w/ 40MHz SPI bus interface	3.35	2.98	2.83

## Dynamic and Video RAM

Part No.	Cross Ref.	Pkg.	Description	1	10	100
41339CH	4116-15	DIP-16	16k x 1 150ns (MM5290J-1R)	\$9.99	\$8.99	\$8.80
41662CH	4164-150	DIP-16	64k x 1 150ns (MCM6665-15)	.59	.53	.48
41574CH	41464-10	DIP-18	64k x 4 100ns (HY53C464S-10)	1.69	1.65	1.59
41427CH	41256-150	DIP-16	256k x 1 150ns (P21256-15)	.69	.59	.49
41398CH	41256-120	DIP-16	256k x 1 120ns (MB81256-12)	.73	.65	.59
42315CH	514256P-80	DIP-20	256k x 4 80ns (UPD424256-80)	2.49	2.25	2.05
93374CH	514256P-70	DIP-20	256k x 4 70ns (TC514256P-70)	2.79	2.49	2.19
128688CH	HM514260	SOJ	256k x 16 70ns	3.39	2.88	2.16
42219CH	511000P-10	DIP-18	1M x 1 100ns (M5M4C1000-10)	2.25	1.99	1.79

♣ Pull = Extra Savings

## Static RAM

Part No.	Cross Ref.	Pkg.	Description	1	10	100
38931CH	2111-1	DIP-18	256 x 4 500ns (AM9111APC)	\$1.69	\$1.55	\$1.35
42198CH	5101	DIP-22	256 x 4 450ns (CMOS)	7.99	7.19	6.49
38957CH	2114N	DIP-18	1k x 4 450ns (9114BPC)	2.29	1.99	1.79
43238CH	6514	DIP-18	1k x 4 350ns CMOS (M58981P)	3.95	3.65	3.35
38973CH	2114N-2	DIP-18	1k x 4 200ns (9114EPC) (U214D20)	2.49	2.09	1.89
38981CH	2114N-2L	DIP-18	1k x 4 200ns low power	2.49	2.25	2.05
243475CH	MBM104174A-10	DIP-24	1k x 4 10ns ECL asynchronous	3.49	1.59	1.43
38746CH	2016-20	DIP-24	2k x 8 200ns (MB8128-20)	1.39	1.18	.88
114260CH	DS1220V-150	DIP-24	2k x 8 150ns 4.25V WP	11.95	10.95	9.85
25911CH	MK48Z02B-15	DIP-24	2k x 8 150ns (16kB) zero-power RAM	6.89	6.39	5.79
42809CH	6116P-3	DIP-24	2k x 8 150ns (16kB) CMOS	1.49	1.29	1.09
42753CH	6116LP-3	DIP-24	2k x 8 150ns (16kB) LP CMOS	1.95	1.75	1.59
38738CH	2016-12	DIP-24	2k x 8 120ns (AM9128-12)	1.49	1.29	1.19
42796CH	6116P-2	DIP-24	2k x 8 120ns (16kB) CMOS	1.59	1.39	1.29

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# Memory and Microprocessors

Color Code Legend			
New	Sale	Lower\$	QtySave

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## Static RAM (Continued)

DIP  SOP/SOJ 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
42788CH	6116P-1	DIP-24	2k x 8 100ns (16kB) CMOS	\$1.69	\$1.49	\$1.39
42737CH	6116LP-1	DIP-24	2k x 8 100ns (16kB) LP CMOS	1.99	1.79	1.65
242675CH	6116-70	DIP-24	2k x 8 70ns (5V) CMOS async.	2.09	1.99	1.89
242683CH	CY7C128A-45	DIP-24	2k x 8 45ns (5V) CMOS async.	\$5.39 2.85	2.58	2.35
242691CH	CY7C128A-35	DIP-24	2k x 8 35ns (5V) CMOS async.	\$4.69 2.49	2.27	2.06
242704CH	CY7C128A-25	DIP-24	2k x 8 25ns (5V) CMOS async.	4.69	2.11	1.91
242712CH	CY7C128A-15	DIP-24	2k x 8 15ns (5V) CMOS async.	5.19	4.19	3.19
114307CH	DS1225Y-200	DIP-28	8k x 8 200ns, 4.25V WP	15.95	14.49	11.65
114278CH	DS1225AB-150	DIP-28	8k x 8 150ns, 4.62V WP	17.29	14.49	9.89
42930CH	6264P-12	DIP-28	8k x 8 120ns (64kB) CMOS	2.65	2.39	2.15
42892CH	6264LP-12	DIP-28	8k x 8 120ns (64kB) LP CMOS	2.79	2.49	2.19
42921CH	6264P-10	DIP-28	8k x 8 100ns (64kB) CMOS	2.59	2.29	1.99
42884CH	6264LP-10	DIP-28	8k x 8 100ns (64kB) LP CMOS	2.75	2.49	2.25
85121CH	6264LP-70	DIP-28	8k x 8 70ns (64kB) LP CMOS	3.39	3.05	2.75
242721CH	6264-55	DIP-28	8k x 8 55ns (5V) CMOS async.	3.29	2.59	2.09
242333CH	CY7C185-35	DIP-28	8k x 8 35ns (5V) CMOS async.	2.89	2.29	1.79
242341CH	CY7C185-25	DIP-28	8k x 8 25ns (5V) CMOS async.	2.89	2.29	1.79
242350CH	7C185-20	DIP-28	8k x 8 20ns 5V asynchronous	2.89	2.29	1.79
114323CH	DS1230Y-150	DIP-28	32k x 8 150ns, 4.37V WP	19.95	18.95	15.15
41988CH	43256-12L	DIP-28	32k x 8 120ns low power NEC	4.99	4.49	4.09
42850CH	62256LP-12	DIP-28	32k x 8 120ns low power CMOS	3.89	3.49	3.19
177113CH	DS1230Y-100	DIP-28	32k x 8 100ns, 4.37V WP	17.75	13.75	12.85
41970CH	43256-10L	DIP-28	32k x 8 100ns low power NEC	5.49	4.99	4.49
42833CH	62256LP-10	DIP-28	32k x 8 100ns low power CMOS	4.19	3.55	2.65
42876CH	62256LP-85	DIP-28	32k x 8 85ns low power CMOS	3.09	2.49	1.99
82472CH	62256LP-70	DIP-28	32k x 8 70ns low power CMOS	5.49	4.99	4.49
279814CH	62256S-70	SOJ-28	32k x 8 70ns 5V CMOS	1.59	1.48	1.36
242499CH	DS1230Y-70	DIP-28	32k x 8 70ns nonvol. 4.5V WP	22.85	19.95	14.27
242376CH	M5M5258P-35	DIP-28	32k x 8 35ns 5V asynchronous	1.99	1.59	1.19
279822CH	CY7C199-35V	SOJ-28	32k x 8 35ns	1.59	1.29	1.09
279831CH	CY7C199-25V	SOJ-28	32k x 8 25ns	1.65	1.39	1.05
279849CH	CY7C199-20V	SOJ-28	32k x 8 20ns	1.75	1.39	1.05
75037CH	UM61M256K-15	DIP-28	32k x 8 15ns hi speed CMOS (.3"W)	3.39	2.99	2.69
279857CH	62256S-15	SOJ-28	32k x 8 15ns	1.49	1.24	1.00
279865CH	62256S-12	SOJ-28	32k x 8 12ns	1.85	1.49	1.12
103982CH	628128LP-85	DIP-32	128k x 8 85ns low power CMOS	8.49	7.49	6.79
131810CH	628128LP-70	DIP-32	128k x 8 70ns low power CMOS	8.99	7.39	6.69
279873CH	628128S-70	SOP-32	128k x 8 70ns	2.49	2.19	1.89
279911CH	CY7C109B-12V	SOJ-32	128k x 8 12ns	2.99	2.55	1.99
280014CH	625616S-70	SOP-44	256k x 16 70ns	7.39	6.89	6.35
280031CH	CY7C1041B-15V	SOJ-44	256k x 16 15ns	8.09	7.09	6.99
157358CH	628512LP-70	DIP-32	512k x 8 70ns low power CMOS	18.99	16.99	16.19
280049CH	628512S-70	SOP-32	512k x 8 70ns	3.45	3.25	3.05
280065CH	CY7C1049B-20V	SOJ-36	512k x 8 20ns	9.99	8.89	7.79

♣ Pull = Extra Savings



## ST7 Micro MCUs

DIP  SOIC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
288139CH	ST7FLITE29F2B6	DIP-20	8-bit MCU w/ flash, 8k ROM, 15 I/O, 8MHz, A/D	\$4.25	\$3.69	\$3.35
288147CH	ST7FLITE29F2M6	SOIC-20	8-bit MCU w/ flash, 8k ROM, 15 I/O, 8MHz, A/D	4.25	3.69	3.35



## Zilog Flash MCUs

DIP  PLCC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
280268CH	Z8F1601PM020SC	DIP-40	16kB ROM, 2kB RAM, 31 I/O, A/D	\$10.95	\$10.25	\$9.65
280276CH	Z8F1601VN020SC	PLCC-44	16kB ROM, 2kB RAM, 31 I/O, A/D	10.99	8.99	8.59
280284CH	Z8F1602VS020SC	PLCC-68	16kB ROM, 2kB RAM, 46 I/O, A/D	11.45	9.05	8.65
280292CH	Z8F2401PM020SC	DIP-40	24kB ROM, 2kB RAM, 31 I/O, A/D	12.65	11.75	10.85
280305CH	Z8F2401VN020SC	PLCC-44	24kB ROM, 2kB RAM, 31 I/O, A/D	12.65	11.75	10.85
280313CH	Z8F2402VS020SC	PLCC-68	24kB ROM, 2kB RAM, 46 I/O, A/D	13.15	10.35	9.85
280321CH	Z8F3201PM020SC	DIP-40	32kB ROM, 2kB RAM, 31 I/O, A/D	13.45	10.55	10.05
280330CH	Z8F3201VN020SC	PLCC-44	32kB ROM, 2kB RAM, 31 I/O, A/D	13.45	10.55	10.05
280348CH	Z8F3202VS020SC	PLCC-68	32kB ROM, 2kB RAM, 46 I/O, A/D	13.95	10.95	10.45
280356CH	Z8F4801PM020SC	DIP-40	48kB ROM, 4kB RAM, 31 I/O, A/D	15.19	11.85	11.35
280364CH	Z8F4801VN020SC	PLCC-44	48kB ROM, 4kB RAM, 31 I/O, A/D	15.15	11.85	11.35
280372CH	Z8F4802VS020SC	PLCC-68	48kB ROM, 4kB RAM, 46 I/O, A/D	15.65	12.35	11.75



## Zilog Flash MCUs (Continued)

DIP  PLCC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
280381CH	Z8F6401PM020SC	DIP-40	64kB ROM, 4kB RAM, 46 I/O, A/D	\$16.85	\$13.25	\$12.55
280399CH	Z8F6401VN020SC	PLCC-44	64kB ROM, 4kB RAM, 46 I/O, A/D	16.85	13.25	12.55
280401CH	Z8F6402VS020SC	PLCC-68	64kB ROM, 4kB RAM, 46 I/O, A/D	17.35	13.65	12.95



## Z8 OTP MCUs

DIP  SOIC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
281228CH	Z86E3016PSC	DIP-28	RAM/ROM Protect, 24 I/O lines	\$6.59	\$4.99	\$4.15
281236CH	Z86E3016VSC	PLCC-28	RAM/ROM Protect, 24 I/O lines	6.59	4.99	4.15
281252CH	Z86E0812SSC1866	SOIC-18	ROM protect, 14 I/O lines	3.99	2.99	2.23
281279CH	Z86E0812SPSC1866	DIP-18	ROM protect, 14 I/O lines	3.99	2.99	2.25
281287CH	Z86E0812PEC	DIP-18	ROM protect, 14 I/O lines	4.35	3.29	2.45
281295CH	Z86E0208SSC1925	SOIC-18	ROM protect, 14 I/O lines, 1 cntr/timer	1.89	1.65	1.45



## Zilog Z80 MPUs

DIP  PLCC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
35561CH	Z80♣	DIP-40	2.5MHz CPU (MK3880N/780C)	\$1.39	\$1.19	\$1.09
35596CH	Z80A♣	DIP-40	4MHz CPU (MK3880N-4/780C-1)	1.99	1.79	1.59
35609CH	Z80A-CTC♣	DIP-28	4MHz counter timer circuit (MK3882-4)	1.99	1.79	1.59
35625CH	Z80A-DART♣	DIP-40	4MHz dual asynchronous receiver/trans.	3.49	3.19	2.89
35641CH	Z80A-PIO♣	DIP-40	4MHz parallel I/O interf. contr. (MK3881-4)	1.49	1.29	1.15
35668CH	Z80A-SIO/0♣	DIP-40	4MHz serial I/O (TxCB & RxCB bond.) MK3884-4	2.19	1.79	1.59
35705CH	Z80B	DIP-40	6MHz CPU (MK3880N-6)	2.59	2.39	2.09
280410CH	Z8018006PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	9.29	7.05	6.29
280428CH	Z8018006VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	9.29	7.05	6.29
280436CH	Z8018008PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	9.69	7.35	6.29
280444CH	Z8018008VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	9.95	7.45	6.25
280452CH	Z8018010PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	7.85	7.45	7.25
280461CH	Z8018010VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	11.29	8.55	7.35
280479CH	Z8S18020PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	13.35	12.05	10.75
280487CH	Z8S18020VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	12.95	9.79	8.05
280495CH	Z8S18033VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	9.55	9.35	9.09
35781CH	Z84C00-4	DIP-40	4MHz CPU (Z84C0004PEC) CMOS	4.15	3.49	2.55
280508CH	Z84C0006VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	3.09	2.79	2.39
280516CH	Z84C0008PEC	DIP-40	Z80 CPU with 3 mode int., 16 regs.	3.25	2.99	2.59
280524CH	Z84C0008VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	3.39	2.89	2.59
280532CH	Z84C0010PEC	DIP-40	Z80 CPU with 3 mode int., 16 regs.	3.25	2.99	2.59
280541CH	Z84C0010VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	4.89	3.69	3.15
280559CH	Z84C0020VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	13.29	12.00	10.20
280567CH	Z84C4008PEC	DIP-40	Dual data ch. communication interface	7.25	6.65	5.69
280575CH	Z84C9010VSC	PLCC-84	Serial/parallel I/O counter/timer	16.75	14.45	12.65
35799CH	Z8530♣	DIP-40	2MHz serial communications controller	2.49	2.25	1.49
281308CH	Z85C3016PSC	DIP-40	Serial communications controller	13.79	10.45	8.37
61786CH	Z85C3008PSC	DIP-40	Serial communications controller	5.69	5.19	4.39
281316CH	Z85C3008VSC	PLCC-44	Serial communications controller	8.19	6.21	5.25
281324CH	Z8523016VSC	PLCC-44	Enhanced serial comm. controller	15.75	14.45	13.96

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## 6500 Series/Commodore/WDC

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
43191CH	6502♣	DIP-40	MPU with internal clock 1MHz	\$7.95	\$6.95	\$6.25
43166CH	65C02♣	DIP-40	MPU with internal clock CMOS	6.95	5.25	3.65
43254CH	6522♣	DIP-40	VIA (versatile interface adapter) 1MHz	3.95	2.69	2.45
43297CH	6532	DIP-40	128 x 8 RAM, I/O timer array	7.95	6.99	6.49
43318CH	6551	DIP-28	ACIA (asynch. comm. interface adptr)	3.95	3.49	3.15
291021CH	W65C816S89-14	DIP-40	16-bit MPU, 254-bit add. bus, 14MHz	11.59	9.99	8.59

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## 6800/68000 Series

DIP  PLCC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
43481CH	6800♣	DIP-40	8-bit MCU	\$6.95	\$5.25	\$3.65
43502CH	6802	DIP-40	8-bit MPU with clock and RAM (1MHz)	8.49	7.65	6.89
43529CH	6803♣	DIP-40	8-bit MCU with 128k RAM	7.79	6.99	6.29
43537CH	MC6808	DIP-40	8-bit MPU with clock and 128k RAM	8.95	8.06	7.25

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## 6800/68000 Series (Con't)

TSSOP



DIP



SOIC



Part No.	Cross Ref.	Pkg.	Description	1	10	100
43545CH	6809E	DIP-40	MPU with external clock (1MHz)	\$3.95	\$3.59	\$3.25
320590CH	68B09E	DIP-40	MPU with external clock (2MHz)	3.95	3.59	3.25
43561CH	6810	DIP-24	128x8 static RAM (1MHz)	1.95	1.69	1.49
43596CH	6821	DIP-40	Peripheral interface adapter (1MHz)	3.95	3.59	3.25
43414CH	68B21	DIP-40	Peripheral interface adapter (2MHz)	4.95	4.49	4.05
43617CH	6840	DIP-28	Programmable timer (1MHz)	2.49	2.25	1.99
43633CH	6850	DIP-24	Asynch. comm. int. adapter (ACIA)	2.39	2.09	1.89
25304CH	MC68000L8	DIP-64	MPU 16-bit (8MHz)	8.95	7.95	7.25
25291CH	MC68000L10	DIP-64	MPU 16-bit (10MHz)	14.95	12.75	9.55
25355CH	MC68701	DIP-40	8-bit EPROM MPU w/ 128B RAM & I/O	15.95	13.95	12.55
25363CH	MC68705P3S	DIP-28	8-bit EPROM MPU w/ 112B RAM & I/O	24.95	22.95	20.65
25371CH	MC68705U3S	DIP-40	8-bit EPROM MPU w/ 112B RAM & I/O	29.95	25.49	19.09
248591CH	MC68HC11E0CFN2	PLCC-52	MCU w/ 512 EPROM & 38 I/O, A/D	10.95	9.85	8.87
248604CH	MC68HC11E1CFN3	PLCC-52	MCU w/ 512 EPROM & 38 I/O, A/D	8.85	7.25	6.55
191863CH	MC68HC11E1CP2	DIP-48	MCU w/ A/D converter (512B RAM)	15.95	14.35	12.69
248583CH	MC68HC11F1CFN3	PLCC-68	MCU w/ 512 EPROM & 30 I/O, A/D	9.99	7.59	7.15
248647CH	MC68HC705C8ACFN	PLCC-44	MCU, OTP 8k ROM, 31 I/O	7.39	5.45	4.99
108919CH	MC68HC705C8P	DIP-40	MCU, OTP 8k ROM, 24 I/O lines	7.29	6.29	5.80
132484CH	MC68HC705C8S	DIP-40	MCU, 8k bytes, EPROM	38.95	34.95	31.55
248639CH	MC68HC705J1ACDW	SOIC-20	MCU, OTP 1.2k ROM, 14 I/O	3.45	3.09	2.79
132530CH	MC68HC705J1ACP	DIP-20	MCU, OTP 1.0k ROM, 14 I/O	2.09	1.89	1.79
108927CH	MC68HC705K1P	DIP-16	MCU, OTP 504B ROM, 10 I/O timer	5.55	5.35	4.95
248612CH	MC68HC705P6ACP	DIP-28	MCU, OTP 4.5k ROM, 21 I/O A/D	3.95	2.75	2.49
248621CH	MC68HC705P6ADW	SOIC-28	MCU, OTP 4.5k ROM, 21 I/O A/D	3.95	2.75	2.49
248655CH	MC68HC705C9ACFN	PLCC-44	MCU, OTP 16k ROM, 31 I/O	11.75	10.55	9.50
248567CH	MC68HC711D3CFN2	PLCC-44	MCU, OTP 4k ROM, 26 I/O	10.75	9.69	8.71
285675CH	MC68HC705BDT	DIP-40	MCU, OTP 11k ROM, 26 I/O A/D	9.99	8.99	7.99
248575CH	MC68HC711E9CFN2	PLCC-52	MCU, OTP 12k ROM, 38 I/O A/D	13.59	10.49	9.89
248356CH	MC68HC908GP32CP	DIP-40	MCU, flash 32k ROM, 33 I/O	12.69	11.39	10.29
323213CH	MC68HC908GR8CP	DIP-28	MCU, flash 8-bit, 8k ROM, 21 I/O A/D	6.25	5.28	5.01
248410CH	MC68HC908JB8ADW	SOIC-28	MCU, flash 8k ROM, 21 I/O USB	6.69	5.99	5.45
248401CH	MC68HC908JB8JP	DIP-20	MCU, flash 8k ROM, 37 I/O USB	5.49	5.45	4.65
323205CH	MC68HC908JK1CDW	SOIC-20	MCU, flash 1.5k ROM, 15 I/O A/D (HCMOS)	2.35	2.01	1.91
323192CH	MC68HC908JK1CP	DIP-20	MCU, flash 1.5k ROM, 15 I/O A/D (HCMOS)	2.79	2.01	1.91
248372CH	MC68HC908JK3CDW	SOIC-20	MCU, flash 4k ROM, 15 I/O	3.75	3.45	3.09
248364CH	MC68HC908JK3CP	DIP-20	MCU, flash 4k ROM, 15 I/O	3.75	3.45	3.09
248399CH	MC68HC908JL3CDW	SOIC-28	MCU, flash 4k ROM, 23 I/O, A/D	5.45	4.95	4.45
248381CH	MC68HC908JL3CP	DIP-28	MCU, flash 4k ROM, 23 I/O, A/D	4.55	4.35	3.95
248436CH	MC68HC908KX8CDW	SOIC-16	MCU, flash 8k ROM, 13 I/O, A/D	6.29	5.69	5.15
248428CH	MC68HC908KX8CP	DIP-16	MCU, flash 8k ROM, 13 I/O, A/D	5.65	5.45	5.05
248495CH	MC68HC908QT1CDW	SOIC-8	MCU, flash 1.5k ROM, 6 I/O	1.89	1.45	1.30
248487CH	MC68HC908QT1CP	DIP-8	MCU, flash 1.5k ROM, 6 I/O	1.89	1.45	1.30
248479CH	MC68HC908QT2CDW	SOIC-8	MCU, flash 1.5k ROM, 6 I/O, A/D	2.39	2.29	2.09
248461CH	MC68HC908QT2CP	DIP-8	MCU, flash 1.5k ROM, 6 I/O, A/D	2.85	2.55	2.29
248452CH	MC68HC908QT4CDW	SOIC-8	MCU, flash 4k ROM, 6 I/O, A/D	2.69	2.05	1.85
248444CH	MC68HC908QT4CP	DIP-8	MCU, flash 4k ROM, 6 I/O, A/D	2.69	1.65	1.43
248559CH	MC68HC908QY1CDT	TSSOP-16	MCU, flash 1.5k ROM, 14 I/O	2.49	2.39	2.19
248541CH	MC68HC908QY1CP	DIP-16	MCU, flash 1.5k ROM, 14 I/O	2.15	1.65	1.49
248532CH	MC68HC908QY2CDT	TSSOP-16	MCU, flash 1.5k ROM, 13 I/O, A/D	2.85	2.69	2.45
248524CH	MC68HC908QY2CP	DIP-16	MCU, flash 1.5k ROM, 13 I/O, A/D	2.55	1.95	1.75
248516CH	MC68HC908QY4CDW	TSSOP-16	MCU, flash 4k ROM, 13 I/O A/D	2.89	2.49	2.25
248508CH	MC68HC908QY4CP	DIP-16	MCU, flash 4k ROM, 13 I/O A/D	2.89	2.49	2.25
323221CH	MC68HC912B32CFU8	QFP-80	MCU, flash 16-bit 1.5k ROM 15 I/O A/D	20.55	19.50	18.52

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## 8000 Series

DIP



Part No.	Cross Ref.	Pkg.	Description	1	10	100
51844CH	8031	DIP-40	CPU with 128 x 8 RAM and I/O	\$3.29	\$2.99	\$2.69
51676CH	80C31	DIP-40	CPU with 128 x 8 RAM and I/O CMOS	3.39	2.89	2.19
102197CH	8032	DIP-40	8-bit MCU 256 x 8 RAM	3.95	3.59	3.25
108804CH	80C32-1	DIP-40	8-bit MCU 256 x 8 RAM CMOS	4.49	3.85	2.89
51861CH	8035	DIP-40	MPU 8-bit	3.95	3.59	3.25
51959CH	8039	DIP-40	CPU single chip 8-bit (128 bytes RAM)	4.49	3.99	3.59
51692CH	80C39	DIP-40	CPU single chip 8-bit (128 bytes RAM) CMOS	3.99	3.39	2.54

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## 8000 Series (Continued)

DIP



PLCC



Part No.	Cross Ref.	Pkg.	Description	1	10	100
51983CH	8049*	DIP-40	CPU single chip 8-bit (can be used as 8039*)	\$1.95	\$1.75	\$1.59
51991CH	8051AP**	DIP-40	MCU w/128x8 RAM	5.49	4.99	4.49
52003CH	8052AH**	DIP-40	CPU 8-bit 256 bytes RAM, tmr/countr & I/O	7.99	7.19	6.49
125647CH	80C52BASIC	DIP-40	CPU 8-bit CMOS w/ basic interpreter	32.09	28.89	25.99
52046CH	8080A	DIP-40	CPU 8-bit N-channel (1MHz)	4.49	3.95	3.59
52062CH	8085AH	DIP-40	CPU 8-bit HMOS (3MHz)	4.99	4.49	3.99
52071CH	8085AH-2	DIP-40	CPU 8-bit HMOS (5MHz)	5.49	4.99	4.49
51705CH	80C85A-2	DIP-40	CPU 8-bit CMOS (5MHz)	6.95	6.26	5.56
52100CH	8086-2	DIP-40	CPU 16-bit (8MHz)	1.95	1.75	1.59
52142CH	8088	DIP-40	CPU 16-bit (8-bit data bus) 5MHz	2.49	2.25	1.99
52169CH	8088-2	DIP-40	CPU 16-bit (8-bit data bus) 8MHz	5.95	5.39	4.85
34358CH	UPD70108-8	DIP-40	V20 chip (replaces the 8088-2) 8MHz	10.99	9.99	8.99
52290CH	8155	DIP-40	HMOS RAM I/O port/timer (3MHz)	4.49	4.05	2.99
52302CH	8155-2	DIP-40	HMOS RAM I/O port/timer (5MHz)	5.95	5.39	4.85
52193CH	81C55	DIP-40	256x8 RAM I/O port/tmr CMOS 3MHz	4.49	3.59	3.19
52468CH	8212	DIP-24	8-bit input/output (74S412)	6.49	5.99	5.49
52484CH	8216	DIP-16	Bi-directional bus driver (non-invert.)	3.95	3.39	2.55
52492CH	8224	DIP-16	Clock generator/driver	2.95	2.49	2.25
52513CH	8228	DIP-28	System contr./bus driver (74S428)	3.69	3.19	2.36
52581CH	8243	DIP-24	I/O expander for 48 series	5.49	4.99	4.49
52610CH	8250A	DIP-40	Asynchronous comm. element	4.95	4.21	3.15
52644CH	8251+	DIP-28	Prog. comm. I/O (USART)	2.99	2.69	2.39
52652CH	8251A	DIP-28	Prog. comm. interface (USART)	3.99	3.69	3.39
52370CH	82C51A	DIP-28	Prog. comm. interface (USART) CMOS	4.49	3.99	3.49
52679CH	8253	DIP-24	Prog. interval timer	3.19	2.89	2.59
52687CH	8253-5	DIP-24	Prog. interval timer (2MHz)	4.99	4.49	3.99
52388CH	82C53-5	DIP-24	Prog. interval timer CMOS 2MHz	4.95	4.25	3.19
52708CH	8254	DIP-24	Prog. interval timer (UPD71054)	4.49	3.99	3.59
52716CH	8254-2	DIP-24	Prog. interval timer (10MHz)	7.35	6.65	5.95
52396CH	82C54	DIP-24	Prog. interval timer CMOS	3.95	3.55	3.19
52409CH	82C54-2	DIP-24	Prog. interval timer CMOS 10MHz	4.49	4.05	3.59
52724CH	8255	DIP-40	Prog. periph. I/O (PPI) 71055 (2MHz)	4.49	3.99	3.49
52732CH	8255A-5	DIP-40	Prog. peripheral I/O (PPI) 5MHz	4.89	4.39	2.89
291805CH	8255AC-5	DIP-40	MPU peripheral I/O (PPI)	4.89	4.39	2.89
52417CH	82C55A	DIP-40	Prog. peripheral I/O (PPI) CMOS	4.99	4.49	3.99
52425CH	82C55A-5	DIP-40	Prog. periph. I/O (PPI) CMOS (5MHz)	4.49	3.99	3.49
52759CH	8256	DIP-40	Multif. universal asynch. rec./trans.	19.99	17.99	16.19
52775CH	8259	DIP-28	Prog. interrupt controller (UPD71059)	1.75	1.55	1.45
52783CH	8259-5	DIP-28	Prog. interrupt controller (8259A-2)	2.49	2.19	1.99
52821CH	8275	DIP-40	Prog. CRT controller	9.95	9.49	8.25
52839CH	8279	DIP-40	Prog. keyboard/display interface	12.99	11.99	10.99
52847CH	8279-5	DIP-40	Prog. keybrd/display interface (5MHz)	12.95	11.69	10.49
52855CH	8282	DIP-20	Octal latch (UPD71082)	5.95	4.89	3.45
52871CH	8284A	DIP-18	Clock gen. and driver (UPD71084)	4.49	3.99	3.59
52898CH	8286	DIP-20	Octal bus transceiver (UPD71086)	3.95	3.59	3.25
52901CH	8287	DIP-20	Octal bus transceiver (inverted)	10.99	9.99	8.99
52919CH	8288	DIP-20	Bus controller (UPD71088) 82C88-2	1.95	1.65	1.25
53006CH	8741	DIP-40	8-bit univ. periph. interface (EPROM)	7.99	7.19	6.49
53014CH	8742	DIP-40	8-bit univ. peripheral interface	9.95	8.49	6.35
53022CH	8748	DIP-40	CPU 8-bit, EPROM, RAM & I/O (21V)	13.95	12.56	11.11
53031CH	8748H	DIP-40	CPU 8-bit, EPROM, RAM & I/O HMOS (21V)	15.95	14.49	12.99
53057CH	8749H	DIP-40	MPU 8-bit (EPROM version 8049)	22.99	19.49	15.95
53073CH	8751	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (3.5-8MHz)	19.99	17.99	16.19
53081CH	8751H	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (1.2-12MHz)	24.95	20.25	14.99
52978CH	87C51	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (3.5-12MHz)	21.99	19.79	17.49
196120CH	P87C51	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (3.5-12MHz) OTP	8.99	8.09	7.29
53090CH	8755	DIP-40	16k EPROM with I/O	8.95	8.09	7.29
248701CH	T89C51RB2	PLCC-44	MCU, flash 16k ROM, 32 I/O	8.65	7.79	7.05
248719CH	T89C51RC2	PLCC-44	MCU, flash 32k ROM, 32 I/O	10.25	9.19	8.29
248727CH	T89C51RD2	PLCC-44	MCU, flash 64k ROM, 32 I/O	13.45	12.15	10.89

♣ Pull = Extra Savings ♠ Refurbished = Backed by Jameco

\* 8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM to convert 8049 to 8039

\*\* Tie pin 31 low to bypass the internal ROM

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## MICROCHIP PIC Microcontrollers

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
310973CH	PIC10F200-I/P	DIP-8	Flash	4	384	16	4 .....	\$ .88	\$ .82
310981CH	PIC10F202-I/P	DIP-8	Flash	4	768	24	4 .....	1.03	.94
311010CH	PIC10F204-I/P	DIP-8	Flash	4	384	16	4 .....	1.02	.94
311028CH	PIC10F206-I/P	DIP-8	Flash	4	768	24	4 .....	1.16	1.08
145040CH	PIC12C508A-04/P	DIP-8	OTP	4	512	25	5 .....	1.49	.99
145058CH	PIC12C509A/JW	DIP-8	EPROM	4	1k	41	5 .....	13.95	12.59
144258CH	PIC12C509A-04/P	DIP-8	OTP	4	1k	41	5 .....	1.49	1.09
193455CH	PIC12C671-04/P	DIP-8	OTP	4	1k	128	6 .....	2.79	2.42
193463CH	PIC12C672-04/P	DIP-8	OTP	4	2k	128	6 .....	2.79	2.28
200475CH	PIC12CE518-04/P	DIP-8	OTP	4	512	25	6 .....	1.79	1.55
200483CH	PIC12CE519-04/P	DIP-8	OTP	4	1k	41	6 .....	1.99	1.69
248137CH	PIC12CE673-10/P	DIP-8	OTP	10	1k	128	5 .....	3.39	3.19
248145CH	PIC12CE674-10/P	DIP-8	OTP	10	2k	128	5 .....	3.45	2.89
223790CH	PIC12F629-I/P	DIP-8	Flash	20	1k	64	6 .....	1.59	1.39
247193CH	PIC12F629-I/SN	SOIC-8	Flash	20	1k	64	6 .....	1.59	1.29
312493CH	PIC12F635-I/P	DIP-8	Flash	20	2k	64	6 .....	1.79	1.66
312506CH	PIC12F635-I/SN	SOIC-8	Flash	20	2k	64	6 .....	1.79	1.66
223781CH	PIC12F675-I/P	DIP-8	Flash	20	1k	64	6 .....	1.99	1.69
247206CH	PIC12F675-I/SN	SOIC-8	Flash	20	1k	64	6 .....	1.95	1.83
312514CH	PIC12F683-I/P	DIP-8	Flash	20	4k	128	6 .....	2.19	2.05
312522CH	PIC12F683-I/SN	SOIC-8	Flash	20	4k	128	6 .....	2.19	2.05
247361CH	PIC14000-4/SP	DIP-28	OTP	4	4k	192	22 .....	11.99	11.45
247370CH	PIC14000-4/SO	SOIC-28	OTP	4	4k	192	22 .....	11.65	11.55
128338CH	PIC16C54A-04/P	DIP-18	OTP	4	512	25	12 .....	3.59	2.59
247214CH	PIC16C54C-20I/P	DIP-18	OTP	20	512	25	12 .....	2.35	2.05
247222CH	PIC16C54C-20I/SO	SOIC-18	OTP	20	512	25	12 .....	2.35	2.15
247231CH	PIC16C54C-20I/SS	SSOP-20	OTP	20	512	25	12 .....	2.55	2.35
200416CH	PIC16C55A-04/P	DIP-28	OTP	4	512	24	20 .....	2.69	2.19
247249CH	PIC16C55A-20I/P	DIP-28	OTP	20	512	24	20 .....	2.95	2.85
247257CH	PIC16C55A-20I/SO	SOIC-28	OTP	20	512	24	20 .....	3.05	2.75
134172CH	PIC16C56-RC/P	DIP-18	OTP	20	1k	25	12 .....	4.49	3.69
247265CH	PIC16C56A-20I/P	DIP-18	OTP	20	1k	25	12 .....	2.85	2.55
247273CH	PIC16C56A-20I/SO	SOIC-18	OTP	20	1k	25	12 .....	2.65	2.35
213495CH	PIC16C57C/JW	DIP-28	EPROM	40	2k	72	20 .....	13.95	12.95
193341CH	PIC16C57C-04/P	DIP-28	OTP	4	2k	72	20 .....	3.19	2.09
247281CH	PIC16C57C-20I/P	DIP-28	OTP	20	2k	72	20 .....	3.45	3.05
247290CH	PIC16C57C-20I/SO	SOIC-28	OTP	20	2k	72	20 .....	3.65	3.25
247302CH	PIC16C58B-20I/P	DIP-18	OTP	20	2k	73	12 .....	2.75	2.45
247311CH	PIC16C58B-20I/SO	SOIC-18	OTP	20	2k	73	12 .....	2.85	2.55
247433CH	PIC16C62B-20I/SO	SOIC-28	OTP	20	2k	128	22 .....	4.45	3.95
247425CH	PIC16C62B-20I/SP	DIP-28	OTP	20	2k	128	22 .....	4.45	3.95
193324CH	PIC16C63A-20I/SP	DIP-28	OTP	20	4k	192	22 .....	5.49	4.49
247450CH	PIC16C65B-20I/L	PLCC-44	OTP	20	4k	192	33 .....	7.85	7.75
247441CH	PIC16C65B-20I/P	DIP-40	OTP	20	4k	192	33 .....	6.79	5.69
200424CH	PIC16C66-04/SP	DIP-18	OTP	4	8k	368	22 .....	7.45	6.45
247476CH	PIC16C66-20I/SO	SOIC-28	OTP	20	8k	368	22 .....	8.75	7.75
247468CH	PIC16C66-20I/SP	DIP-28	OTP	20	8k	368	22 .....	8.75	7.75
247492CH	PIC16C67-20I/L	PLCC-44	OTP	20	8k	368	33 .....	9.15	8.95
247484CH	PIC16C67-20I/P	DIP-40	OTP	20	8k	368	33 .....	8.75	7.75
200432CH	PIC16C72A-04/SP	DIP-28	OTP	4	2k	128	22 .....	4.99	4.39
247695CH	PIC16C72A-20I/P	DIP-28	OTP	20	2k	128	22 .....	5.85	5.15
247708CH	PIC16C72A-20I/SO	SOIC-28	OTP	20	2k	128	22 .....	5.85	5.15
200441CH	PIC16C73A-04/SP	DIP-28	OTP	4	4k	192	22 .....	8.65	7.79
145091CH	PIC16C74A/JW	DIP-40	EPROM	20	14k	192	33 .....	19.95	17.99
200459CH	PIC16C505-04/P	DIP-14	OTP	20	1k	72	12 .....	1.99	1.29
247329CH	PIC16C505-20I/P	DIP-14	OTP	20	1k	72	11 .....	2.05	1.85
247337CH	PIC16C505-20I/SL	SOIC-14	OTP	20	1k	72	11 .....	1.99	1.69
247388CH	PIC16C554-4/P	DIP-18	OTP	4	512	80	13 .....	3.75	3.65
247396CH	PIC16C554-4/SO	SOIC-18	OTP	4	512	80	13 .....	3.85	3.75
247409CH	PIC16C558-20I/P	DIP-18	OTP	20	2k	128	13 .....	4.59	3.87
247417CH	PIC16C558-20I/SO	SOIC-18	OTP	20	2k	128	13 .....	4.95	4.85
247505CH	PIC16C620A-20I/P	DIP-18	OTP	20	512	96	13 .....	2.25	2.05
247513CH	PIC16C620A-20I/SO	SOIC-18	OTP	20	512	96	13 .....	2.35	2.05
247521CH	PIC16C621A-20I/P	DIP-18	OTP	20	1k	96	13 .....	2.55	2.45
247530CH	PIC16C621A-20I/SO	SOIC-18	OTP	20	1k	96	13 .....	2.59	2.19
193383CH	PIC16C622A-04/P	DIP-18	OTP	4	2k	128	13 .....	2.69	2.29

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Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
247548CH	PIC16C622A-20I/P	DIP-18	OTP	20	2k	128	13 .....	\$3.15	\$2.69
247556CH	PIC16C622A-20I/SO	SOIC-18	OTP	20	2k	128	13 .....	3.25	2.85
247581CH	PIC16C710-20/P	DIP-18	OTP	20	512	36	13 .....	3.95	3.05
193359CH	PIC16C711-04/P	DIP-18	OTP	4	1k	68	13 .....	3.99	2.29
247599CH	PIC16C711-20/P	DIP-18	OTP	20	1k	68	13 .....	4.65	3.42
247601CH	PIC16C711-20/SO	SOIC-18	OTP	20	1k	68	13 .....	4.75	3.49
247610CH	PIC16C712-20/P	DIP-18	OTP	20	1k	128	13 .....	3.45	2.85
247628CH	PIC16C712-20/SO	SOIC-18	OTP	20	1k	128	13 .....	3.55	2.95
200467CH	PIC16C715-04/P	DIP-18	OTP	4	2k	128	13 .....	4.49	4.09
247636CH	PIC16C715-20/P	DIP-18	OTP	20	2k	68	13 .....	4.75	3.49
247644CH	PIC16C715-20/SO	SOIC-18	OTP	20	2k	68	13 .....	4.85	4.05
247652CH	PIC16C716-20I/P	DIP-18	OTP	20	2k	128	13 .....	4.25	3.25
247661CH	PIC16C716-20I/SO	SOIC-18	OTP	20	2k	128	13 .....	4.25	3.35
247679CH	PIC16C717-I/P	DIP-20	OTP	20	2k	256	16 .....	4.15	3.15
247687CH	PIC16C717-SO	SOIC-20	OTP	20	2k	256	16 .....	3.75	2.95
247804CH	PIC16C745-I/SO	SOIC-28	OTP	24	8k	256	22 .....	5.15	3.95
247791CH	PIC16C745-I/SP	DIP-28	OTP	24	8k	256	22 .....	5.15	3.95
247821CH	PIC16C765-I/L	PLCC-44	OTP	24	8k	256	33 .....	6.39	5.42
247812CH	PIC16C765-I/P	DIP-40	OTP	24	8k	256	33 .....	6.09	4.49
247716CH	PIC16C770-I/P	DIP-20	OTP	20	2k	256	16 .....	4.15	3.15
247724CH	PIC16C770-SO	SOIC-20	OTP	20	2k	256	16 .....	3.69	2.72
247732CH	PIC16C771-I/P	DIP-20	OTP	20	2k	256	16 .....	4.45	3.45
247741CH	PIC16C771-I/SO	SOIC-20	OTP	20	2k	256	16 .....	4.55	3.45
247759CH	PIC16C773-I/SP	DIP-28	OTP	20	4k	256	22 .....	7.05	6.25
247767CH	PIC16C773-I/SO	SOIC-28	OTP	20	4k	256	22 .....	7.05	6.25
247783CH	PIC16C774-I/L	PLCC-44	OTP	20	4k	256	33 .....	9.05	8.52
247775CH	PIC16C774-I/P	DIP-40	OTP	20	4k	256	33 .....	8.49	7.21
247847CH	PIC16C923-04I/L	PLCC-68	OTP	4	4k	176	52 .....	6.29	6.11
312531CH	PIC16F54-I/P	DIP-18	Flash	20	512	25	12 .....	1.79	1.73
312549CH	PIC16F54-I/SO	SOIC-18	Flash	20	512	25	12 .....	1.79	1.73
312557CH	PIC16F57-I/P	DIP-28	Flash	20	2k	72	20 .....	2.39	2.29
312565CH	PIC16F57-I/SO	SOIC-28	Flash	20	2k	72	20 .....	2.29	2.21
312661CH	PIC16F72-I/SO	SOIC-18	Flash	20	2k	128	13 .....	3.15	2.90
312653CH	PIC16F72-I/SP	DIP-18	Flash	20	2k	128	13 .....	3.15	2.90
193391CH	PIC16F73-I/SP	DIP-28	Flash	20	4k	192	5 .....	5.19	4.19
246801CH	PIC16F73-I/SO	SOIC-28	Flash	20	4k	192	22 .....	5.15	4.55
246810CH	PIC16F73-I/SS	SSOP-28	Flash	20	4k	192	22 .....	5.25	4.65
246772CH	PIC16F74-I/L	PLCC-44	Flash	20	4k	192	33 .....	6.95	6.45
193404CH	PIC16F74-I/P	DIP-40	Flash	20	4k	192	8 .....	6.19	5.19
246781CH	PIC16F74-I/P	TOFP-44	Flash	20	4k	192	33 .....	7.45	6.55
246828CH	PIC16F76-I/SO	SOIC-28	Flash	20	8k	368	22 .....	6.35	5.65
193412CH	PIC16F76-I/SP	DIP-28	Flash	20	8k	368	5 .....	6.49	5.39
246836CH	PIC16F76-I/SS	SSOP-28	Flash	20	8k	368	22 .....	6.49	5.52
246799CH	PIC16F77-I/L	PLCC-44	Flash	20	8k	368	33 .....	7.85	6.99

## Programming & Customizing PICmicro Microcontrollers

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**McGraw-Hill** Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices. (1190 pages, 2001)

Includes: CD-ROM and PIC PCB

Part No.	Description	Size	Wt. (lbs.)	Price
183046CH	PICmicro Programming	9.2" x 7.3"	4.0 .....	\$49.95

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### Intermediate Level PIC Applications

**Square 1 Publishing** This book previously appeared in PIC'n Techniques book. The more current PIC16F870 is substituted for the PIC16C63. Topics such as test equipment for timing & counting experiments to using timer 1 & 2, and capture/ compare/PWM as well as programs are included in this book. (218 pages, 2002)

Part No.	Description	Size	Wt. (lbs.)	Price
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## MICROCHIP PIC Microcontrollers

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
193421CH	PIC16F77-I/P	DIP-40	Flash	20	8k	368	8 .....	\$7.09	\$5.89
145111CH	PIC16F84-04/P	DIP-18	Flash	4	1k	68	13 .....	6.59	4.39
145120CH	PIC16F84-10/P	DIP-18	Flash	10	1k	68	13 .....	7.09	5.99
193332CH	PIC16F84A-20/P	DIP-18	Flash	20	1k	68	13 .....	5.79	4.69
246844CH	PIC16F84A-20/SO	SOIC-18	Flash	20	1k	68	13 .....	5.75	5.05
246852CH	PIC16F84A-20/SS	SSOP-20	Flash	20	1k	68	13 .....	6.15	5.75
246861CH	PIC16F84A-20I/P	DIP-18	Flash	20	1k	68	13 .....	6.25	5.55
246879CH	PIC16F84A-20I/SO	SOIC-18	Flash	20	1k	68	13 .....	6.35	5.55
246887CH	PIC16F84A-20I/SS	SSOP-20	Flash	20	1k	68	13 .....	6.75	6.25
247097CH	PIC16F87-I/P	DIP-18	Flash	20	4k	368	16 .....	4.05	3.15
247100CH	PIC16F87-I/SO	SOIC-18	Flash	20	4k	368	16 .....	4.15	3.15
247118CH	PIC16F87-I/SS	SSOP-20	Flash	20	4k	368	16 .....	4.45	3.65
312733CH	PIC16F88-I/P	DIP-18	Flash	20	7k	368	16 .....	4.15	3.35
312741CH	PIC16F88-I/SO	SOIC-18	Flash	20	7k	368	16 .....	4.25	3.42
323096CH	PIC16F505-I/P	DIP-14	Flash	20	1k	72	12 .....	1.65	1.49
193439CH	PIC16F627-20/P	DIP-18	Flash	20	1k	224	16 .....	3.29	2.55
193447CH	PIC16F628-20/P	DIP-18	Flash	20	2k	224	16 .....	3.69	2.69
246730CH	PIC16F628-20/SO	SOIC-18	Flash	20	2k	224	16 .....	3.79	2.85
246748CH	PIC16F628-20/SS	SSOP-20	Flash	20	2k	224	16 .....	4.05	3.15
246756CH	PIC16F628-20I/P	DIP-18	Flash	20	2k	224	16 .....	4.05	3.15
246764CH	PIC16F628-20I/SO	SOIC-18	Flash	20	2k	224	16 .....	4.09	3.02
223749CH	PIC16F630-I/P	DIP-14	Flash	20	1k	64	12 .....	1.89	1.59
247126CH	PIC16F630-I/SL	SOIC-14	Flash	20	1k	128	12 .....	1.85	1.65
247134CH	PIC16F630-I/ST	TSSOP-14	Flash	20	1k	128	12 .....	2.05	1.85
312573CH	PIC16F636-I/P	DIP-14	Flash	20	2k	128	12 .....	2.09	1.91
312581CH	PIC16F636-I/ST	TSSOP-14	Flash	20	2k	128	12 .....	2.19	1.70
247142CH	PIC16F648A-I/P	DIP-18	Flash	20	4k	256	16 .....	3.25	2.55
247151CH	PIC16F648A-I/SO	SOIC-18	Flash	20	4k	256	16 .....	3.25	2.55
247169CH	PIC16F648A-I/SS	SSOP-20	Flash	20	4k	256	16 .....	3.59	2.66
223757CH	PIC16F676-I/P	DIP-14	Flash	20	1k	64	12 .....	2.19	1.79
247177CH	PIC16F676-I/SL	SOIC-14	Flash	20	1k	64	12 .....	2.15	1.95
247185CH	PIC16F676-I/ST	TSSOP-14	Flash	20	1k	64	12 .....	2.35	2.00
312590CH	PIC16F684-I/P	DIP-14	Flash	20	2k	128	12 .....	2.35	2.17
312602CH	PIC16F684-I/ST	TSSOP-14	Flash	20	2k	128	12 .....	2.59	2.37
312611CH	PIC16F688-I/P	DIP-14	Flash	20	4k	256	12 .....	2.79	2.59
312629CH	PIC16F688-I/ST	TSSOP-14	Flash	20	4k	256	12 .....	3.05	2.79
312637CH	PIC16F716-I/P	DIP-28	Flash	20	2k	128	13 .....	2.35	2.17
312645CH	PIC16F716-I/SO	SOIC-18	Flash	20	2k	128	13 .....	2.35	2.17
312688CH	PIC16F737-I/SP	SOIC-28	Flash	20	4k	368	25 .....	5.55	4.75
312670CH	PIC16F737-I/SO	DIP-28	Flash	20	4k	368	25 .....	5.39	4.65
312696CH	PIC16F747-I/P	DIP-40	Flash	20	4k	368	36 .....	6.45	5.45
312717CH	PIC16F767-I/SO	SOIC-28	Flash	20	8k	368	25 .....	6.69	5.47
312709CH	PIC16F767-I/SP	DIP-28	Flash	20	8k	368	25 .....	6.29	5.36
312725CH	PIC16F777-I/P	DIP-40	Flash	20	8k	368	36 .....	6.89	5.90
223765CH	PIC16F818-I/P	DIP-18	Flash	20	1k	128	16 .....	3.09	2.29
247054CH	PIC16F818-I/SO	SOIC-18	Flash	20	1k	128	16 .....	3.15	2.45
247062CH	PIC16F818-I/SS	SSOP-20	Flash	20	1k	128	16 .....	3.35	2.65
223773CH	PIC16F819-I/P	DIP-18	Flash	20	2k	256	16 .....	3.59	2.59
247089CH	PIC16F819-I/SO	SOIC-18	Flash	20	2k	256	16 .....	3.55	2.75
247071CH	PIC16F819-I/SS	SSOP-20	Flash	20	2k	256	16 .....	3.85	2.95
246908CH	PIC16F870-I/SO	SOIC-28	Flash	20	2k	128	22 .....	4.35	3.69
246895CH	PIC16F870-I/SP	DIP-28	Flash	20	2k	128	22 .....	4.35	3.69

## MICROCHIP PIC Microcontrollers

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
246916CH	PIC16F870-I/SS	SSOP-28	Flash	20	2k	128	22 .....	\$4.49	\$3.81
246932CH	PIC16F871-I/L	PLCC-44	Flash	20	2k	128	33 .....	5.85	5.65
246924CH	PIC16F871-I/P	DIP-40	Flash	20	2k	128	33 .....	5.15	4.65
246959CH	PIC16F872-I/SO	SOIC-28	Flash	20	2k	128	22 .....	4.35	3.69
246941CH	PIC16F872-I/SP	DIP-28	Flash	20	2k	128	22 .....	4.35	3.69
246967CH	PIC16F872-I/SS	SSOP-28	Flash	20	2k	128	22 .....	4.49	3.81
246983CH	PIC16F873A-I/SO	SOIC-28	Flash	20	4k	192	22 .....	6.25	5.55
246975CH	PIC16F873A-I/SP	DIP-28	Flash	20	4k	192	22 .....	6.29	5.19
247003CH	PIC16F874A-I/L	PLCC-44	Flash	20	4k	192	33 .....	7.55	6.73
246991CH	PIC16F874A-I/P	DIP-40	Flash	20	4k	192	33 .....	6.75	5.95
247020CH	PIC16F876A-I/SO	SOIC-28	Flash	20	8k	368	22 .....	6.65	5.85
247011CH	PIC16F876A-I/SP	DIP-28	Flash	20	8k	368	22 .....	6.65	5.85
193367CH	PIC16F876-20/SP	DIP-28	Flash	20	256	368	22 .....	7.89	6.69
247046CH	PIC16F877A-I/L	PLCC-44	Flash	20	8k	368	33 .....	8.15	7.65
247038CH	PIC16F877A-I/P	DIP-40	Flash	20	8k	368	33 .....	7.25	5.05
176882CH	PIC16F877-20/P	DIP-40	Flash	20	256	368	33 .....	9.49	8.49
247345CH	PIC16HV540-20/P	DIP-18	OTP	20	512	25	12 .....	2.35	2.05
247353CH	PIC16HV540-20/SO	SSOP-20	OTP	20	512	25	12 .....	2.35	2.00
247880CH	PIC17C42A-16/L	PLCC-44	OTP	16	2k	232	33 .....	10.39	9.64
247871CH	PIC17C42A-16/P	DIP-40	OTP	16	2k	232	33 .....	9.39	8.29
247901CH	PIC17C43-25/L	PLCC-44	OTP	25	4k	454	33 .....	13.85	12.95
247898CH	PIC17C43-25/P	DIP-40	OTP	25	4k	454	33 .....	11.85	10.45
247927CH	PIC17C44-33/L	PLCC-44	OTP	33	8k	454	33 .....	15.39	13.59
247919CH	PIC17C44-33/P	DIP-40	OTP	33	8k	454	33 .....	14.75	12.40
247935CH	PIC17C752-33/L	PLCC-68	OTP	33	8k	678	50 .....	13.95	12.95
247943CH	PIC17C756A-33I/L	PLCC-68	OTP	33	16k	902	50 .....	16.05	14.89
247951CH	PIC17C762-16/L	PLCC-84	OTP	33	8k	678	66 .....	16.75	16.65
247960CH	PIC17C766-33I/L	PLCC-84	OTP	33	16k	902	66 .....	19.25	17.89
200491CH	PIC18C242-I/SP	DIP-28	OTP	40	16k	512	23 .....	6.95	6.57
200504CH	PIC18C252-I/SO	DIP-28	OTP	40	32k	1536	23 .....	7.75	6.95
200512CH	PIC18C452-I/P	DIP-40	OTP	40	32k	1536	23 .....	9.19	7.49
200521CH	PIC18C452I/JW	DIP-40	EPROM	40	32k	1536	23 .....	22.85	20.55
247986CH	PIC18F242-I/SO	SOIC-28	Flash	40	8k	768	23 .....	7.39	6.61
247978CH	PIC18F242-I/SP	DIP-28	Flash	40	8k	768	23 .....	7.39	6.61
312291CH	PIC18F248-I/SO	SOIC-28	Flash	40	16k	768	22 .....	8.49	7.85
312282CH	PIC18F248-I/SP	DIP-28	Flash	40	16k	768	22 .....	8.49	7.82
248006CH	PIC18F252-I/SO	SOIC-28	Flash	40	16k	1536	23 .....	8.05	7.20
247994CH	PIC18F252-I/SP	DIP-28	Flash	40	16k	1536	23 .....	8.05	7.20
248022CH	PIC18F258-I/SO	SOIC-28	Flash	40	16k	1536	23 .....	9.65	8.62
248014CH	PIC18F258-I/SP	DIP-28	Flash	40	16k	1536	23 .....	9.65	8.62

## Easy Microcontrol'n

## Beginners Guide (Version 4)

**Square 1 Publishing** A revision of and successor to Easy PIC'n that covers Peripheral Interface Controller (PIC) PIC16F84, writing programs, interrupts, timing and counting. (178 pages, 2002)

Part No.	Description	Size	Weight	Price
215061CH	Easy Microcontrol'n	8.5" x 11.0"	1.2 lbs.	\$29.95

See Additional Microcontroller Books on pages 10 and 12.

## Serial Communications

## Serial Communications PIC Applications

**Square 1 Publishing** Topics such as asynchronous serial communications, RS242 standard, ASCII character code, bit-bang asynchronous communications and synchronous serial communications to name a few are covered in this book as well as tool box modules and applications. (566 pages, 2002)

• Size: 8.6" x 11.0" • Weight: 3.5 lbs.

Part No.	Description	Price
210497CH	Serial Communications	\$49.95

## Microcontrol'n Apps

## PIC Microcontroller Applications (Version 2)

**Square 1 Publishing** This book is a revision of and the successor to PIC'n Up The Pace. Materials covered in the book include talking to a PIC microcontroller with a PC running a terminal, simple data logger and digital voltmeter experiment, PIC16F87x and 10-bit A/D conversion. (437 pgs, 2002)

• Size: 8.5" x 11.0" • Weight: 1.7 lbs.

Part No.	Description	Price
215052CH	Microcontrol'n Apps	\$44.95

## PIC Microcontroller Project Book

## Comprehensive Beginner's Guide

**McGraw-Hill** Hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000) • Size: 7.3" x 9.2" • Wt.: 1.0 lbs.

Part No.	Description	Price
174650CH	PIC Beginner's Guide	\$29.95



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## MICROCHIP PIC Microcontrollers

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
248081CH	PIC18F442-I/L	PLCC-44	Flash	40	8k	768	34	.....	\$9.59 \$8.63
248073CH	PIC18F442-I/P	DIP-40	Flash	40	8k	768	34	.....	8.15 7.35
312477CH	PIC18F448-I/L	PLCC-44	Flash	40	16k	768	33	.....	9.65 9.22
312469CH	PIC18F448-I/P	DIP-40	Flash	40	16k	768	33	.....	8.69 8.05
248049CH	PIC18F452-I/L	PLCC-44	Flash	40	16k	1536	34	.....	10.29 9.26
248031CH	PIC18F452-I/P	DIP-40	Flash	40	16k	1536	34	.....	8.85 7.99
248090CH	PIC18F1220-I/P	DIP-18	Flash	40	2k	256	16	.....	4.35 3.89
248102CH	PIC18F1220-I/SO	SOIC-18	Flash	40	2k	256	16	.....	4.35 3.89
248111CH	PIC18F1320-I/P	DIP-18	Flash	40	4k	256	16	.....	4.89 4.40
248129CH	PIC18F1320-I/SO	SOIC-18	Flash	40	4k	256	16	.....	4.89 4.40
311861CH	PIC18F2220-I/SP	DIP-28	Flash	40	4k	512	25	.....	6.69 6.15
311917CH	PIC18F2320-I/SO	SOIC-28	Flash	40	8k	512	25	.....	7.05 6.65
311909CH	PIC18F2320-I/SP	DIP-28	Flash	40	8k	512	25	.....	7.05 6.64
311984CH	PIC18F2331-I/SO	SOIC-28	Flash	40	8k	512	25	.....	7.79 7.17
311950CH	PIC18F2331-I/SP	DIP-28	Flash	40	8k	768	24	.....	7.85 7.21
312098CH	PIC18F2431-I/SO	SOIC-28	Flash	40	16k	768	24	.....	8.05 7.45
312071CH	PIC18F2431-I/SP	DIP-28	Flash	40	16k	768	24	.....	8.09 7.46
312274CH	PIC18F2439-I/SO	SOIC-28	Flash	40	12k	640	21	.....	7.09 6.52
312231CH	PIC18F2439-I/SP	DIP-28	Flash	40	12k	640	21	.....	7.09 6.52
312311CH	PIC18F2525-I/SO	SOIC-28	Flash	40	48k	3986	25	.....	8.75 7.70
312303CH	PIC18F2525-I/SP	DIP-28	Flash	40	48k	3986	25	.....	9.05 8.00
312346CH	PIC18F2539-I/SO	SOIC-28	Flash	40	24k	1408	21	.....	7.75 7.10
312338CH	PIC18F2539-I/SP	DIP-28	Flash	40	24k	1408	21	.....	7.69 7.10
312400CH	PIC18F4220-I/P	DIP-40	Flash	40	4k	512	36	.....	7.15 6.77
312426CH	PIC18F4320-I/P	DIP-40	Flash	40	8k	512	36	.....	7.95 7.30
312434CH	PIC18F4331-I/P	DIP-40	Flash	40	8k	768	36	.....	8.89 7.86
312451CH	PIC18F4431-I/P	DIP-40	Flash	40	16k	768	36	.....	8.85 8.15
312442CH	PIC18F4439-I/P	DIP-40	Flash	40	12k	640	32	.....	7.89 7.26
312485CH	PIC18F4539-I/P	DIP-40	Flash	40	24k	1408	32	.....	8.55 7.86
248065CH	PIC18F458-I/L	PLCC-44	Flash	40	16k	1536	34	.....	11.15 10.05
248057CH	PIC18F458-I/P	DIP-40	Flash	40	16k	1536	34	.....	9.79 8.75

## MICROCHIP 16-Bit Digital Signal Converters dsPIC

The dsPIC® Digital Signal Controller (DSC) from Microchip is a powerful 16-bit (data) modified Harvard RISC machine that combines the control advantages of a high-performance 16-bit microcontroller (MCU) with the high computation speed of a fully implemented digital signal processor (DSP) to produce a tightly coupled single-chip single-instruction stream solution for embedded systems design. All integrate Flash program memory and most have EEPROM data storage.

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	Program MIPS	Mem. Bytes	SRAM Bytes	1	25
321787CH	DSPIC30F2010-20/SOG	SOIC-28	Flash	40	20	12k	512	.....	\$9.25 \$7.89
321779CH	DSPIC30F2010-20/SPG	DIP-28	Flash	40	20	12k	512	.....	9.19 7.90
321808CH	DSPIC30F2010-30/SOG	SOIC-28	Flash	40	30	12k	512	.....	10.69 9.09
321795CH	DSPIC30F2010-30/SPG	DIP-28	Flash	40	30	12k	512	.....	10.79 9.09
321816CH	DSPIC30F6010-20/PF	TQFP-80	Flash	40	20	144k	8192	.....	27.65 22.75
321824CH	DSPIC30F6010-30/PF	TQFP-80	Flash	40	30	144k	8192	.....	28.99 26.15
321832CH	DSPIC30F6011-20/PF	TQFP-64	Flash	40	20	132k	6144	.....	23.29 18.79
321841CH	DSPIC30F6011-30/PF	TQFP-64	Flash	40	30	132k	6144	.....	26.79 21.65
321859CH	DSPIC30F6012-20/PF	TQFP-64	Flash	40	20	144k	8192	.....	25.79 20.99
321867CH	DSPIC30F6012-30/PF	TQFP-64	Flash	40	30	144k	8192	.....	29.89 24.15
323053CH	DSPIC30F6013-20/PF	TQFP-80	Flash	40	20	132k	6144	.....	24.75 19.95
323061CH	DSPIC30F6013-30/PF	TQFP-80	Flash	40	30	132k	6144	.....	28.45 22.95
323070CH	DSPIC30F6014-20/PF	TQFP-80	Flash	40	20	144k	8192	.....	27.39 22.15
323088CH	DSPIC30F6014-30/PF	TQFP-80	Flash	40	30	144k	8192	.....	31.35 25.49

## PIC BASIC Programming and Projects

**Newnes Publications** The BASIC language, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001)

Part No.	Description	Size	Weight	1	10
200168CH	PIC BASIC Programming	6.1" x 9.2	0.8 lbs. ....	\$37.25	\$35.36

## ATMEL Microcontrollers

Part No.	Product No.	Pkg.	Description	1	25
248330CH	ATMEGA8-16PI	DIP-28	8-bit MCU, 16MHz 8kB flash	\$5.25	\$4.41
323133CH	ATMEGA16-16PI	DIP-40	8-bit AVR MCU, 16MHz w/ 16kB prog flash	6.25	3.91
248153CH	ATTINY11-6PC	DIP-8	8-bit MCU, 6MHz 1kB flash	1.48	1.32
248161CH	ATTINY11-6SI	SOIC-8	8-bit MCU, 6MHz 1kB flash	1.79	1.51
248170CH	ATTINY12-8PC	DIP-8	8-bit MCU, 8MHz 1kB flash	1.85	1.59
248188CH	ATTINY12-8SI	SOIC-8	8-bit MCU, 8MHz 1kB flash	1.99	1.69
248196CH	ATTINY15L-1PC	DIP-8	8-bit MCU, 1.6MHz 1kB flash	2.99	2.53
248209CH	ATTINY15L-1SI	SOIC-8	8-bit MCU, 1.6MHz 1kB flash	2.99	2.53
248217CH	ATTINY26-16PC	DIP-20	8-bit MCU, 16MHz 2kB flash	2.49	2.11
248225CH	ATTINY26-16SI	SOIC-20	8-bit MCU, 16MHz 2kB flash	2.59	2.25
248233CH	ATTINY28L-4PC	DIP-28	8-bit MCU, 4MHz 2kB flash	2.25	1.88
248348CH	ATMEGA8515-16JI	PLCC-44	8-bit MCU, 16MHz 8kB flash	5.19	4.52
323141CH	ATMEGA8515-16PC	DIP-40	8-bit AVR MCU, 16MHz w/ 8kB prog flash	4.59	3.40
168866CH	AT89C1051-24PC	DIP-20	8-bit MCU, 24MHz 1kB flash mem.	2.65	2.15
168874CH	AT89C2051-24PC	DIP-20	8-bit MCU, 24MHz 2kB flash mem.	2.49	2.39
265332CH	AT89C2051-12PC	DIP-20	8-bit MCU, 12MHz 2kB flash MCU mem.	3.29	2.85
204089CH	AT89C4051-24PC	DIP-20	8-bit MCU, 24MHz 4kB flash mem. 8-bit	2.99	1.69
323109CH	AT89C4051-24SC	SOIC-20	8-bit MCU, 24MHz 4kB flash mem	2.05	1.51
168911CH	AT89C51-24JC	PLCC-44	8-bit MCU w/ 4kB flash	3.79	3.39
168903CH	AT89C51-24PC	DIP-40	8-bit MCU, 24MHz 4kB flash memory	4.49	3.99
168920CH	AT89C52-24PC	DIP-40	8-bit MCU, 24MHz 8kB flash memory	3.39	2.79
220871CH	AT89S52-24JI	PLCC-44	8-bit MCU, 8kB programmable flash	3.99	3.69
323117CH	AT89S53-24JI	PLCC-44	8-bit MCU, 24MHz 12kB flash mem	4.85	3.86
168946CH	AT89C55WD-24PC	DIP-40	8-bit MCU, 24MHz 20kB flash memory	6.99	6.79
323125CH	AT89S8252-24JI	PLCC-44	8-bit MCU, 24MHz 8kB flash mem	4.85	3.63
204097CH	AT89S8252-24PC	DIP-40	8-bit MCU, 24MHz 8kB flash mem. 2kB EEPROM	4.69	3.69
204100CH	AT90S1200-12PC	DIP-20	20 AVR 8-bit RISC MCU, 12MHz 1kB prog. flash	2.39	1.99
248241CH	AT90S1200A-12SC	SOIC-20	8-bit AVR MCU, 12MHz 1kB prog. flash	2.89	2.45
248250CH	AT90S2313-10PC	DIP-20	8-bit AVR MCU, 10MHz 2kB prog. flash	3.25	2.69
248268CH	AT90S2313-10SI	SOIC-20	8-bit AVR MCU, 10MHz 2kB prog. flash	2.65	2.39
204118CH	AT90S2323-10PC	DIP-8	8-bit AVR MCU, 10MHz 2kB prog. flash	2.59	2.29
248276CH	AT90S2323-10SI	SOIC-8	8-bit AVR MCU, 10MHz 2kB prog. flash	3.25	2.79
248284CH	AT90S2343-10PC	DIP-8	8-bit AVR MCU, 10MHz 2kB prog. flash	2.99	2.63
248292CH	AT90S2343-10SI	SOIC-8	8-bit AVR MCU, 10MHz 2kB prog. flash	3.49	2.74
204126CH	AT90S8515-8PC	DIP-40	8-bit AVR MCU, 8MHz 8kB prog. flash	8.85	7.95

## TEXAS INSTRUMENTS Microcontrollers SSOP

Part No.	Product No.	Pkg.	Description	1	10	100
248663CH	MSP430F1121AIPW	SSOP-20	MCU, flash 8MHz 8k ROM, 15 I/O	\$3.55	\$3.45	\$3.09
248680CH	MSP430F1231PW	SSOP-28	MCU, flash 8MHz 8k ROM, 15 I/O	4.79	4.69	4.25

## Get PICky, Save More Time!

While we all know that products like the PIC microcontroller have greatly simplified the development of embedded applications, we're always looking for quicker ways to get the job done.

Reference designs, app notes and software snippets all help shave precious time from the development cycle. And while you're probably already using reference designs and app notes, you're probably not fully aware of the software support available.

Before you spec your next project, be sure to google "PIC software". You'll be surprised at the amount of software that is added to the public domain on a weekly basis. And the breadth of software is equally amazing. Whether you need a supporting RTOS or a thermocouple transform, you can be sure that in very little time, you'll find code snippets that will save you a great deal of development and debugging time.



**Practical Practices**  
Money Saving Tips for the Engineer

## The Rabbit 3000 Microprocessor

The new Rabbit 3000 is a high-performance, low-EMI microprocessor designed specifically for embedded control, communications, and Ethernet connectivity. The 8-bit Rabbit 3000 out performs most 16-bit processors without losing the efficiency of an 8-bit architecture. Extensive integrated features and glueless architecture facilitate rapid hardware design, while a C-friendly instruction set promotes efficient development of even the most complex applications.

All development kits come complete with microprocessor core module, prototyping board, Dynamic C® development software with documentation on CD-ROM, serial cable for programming and debugging, getting started manual and AC adapter.

### Shared Features of the RCM3000 RabbitCore™ Series

- EMI Reduction: spectrum spreader for reduced EMI (radiated emissions)

- Serial Rate: max. asynchronous burst rate = CLK/8
- Backup battery: connection for user-supplied battery (to support RTC and SRAM)
- Shared interface: permits use as master or intelligent peripheral with Rabbit-based or other master controller
- Real-time clock: battery backable
- Watchdog: yes
- Timers: ten 8-bit timers (six cascable from the first, three reserved for internal peripherals), and one 10-bit timer with 2 match registers
- Pulse-width modulation: 8-bit free running counter and four 10-bit pulse-width registers
- Input capture: 2-channel input capture can be used to time input signals from various port pins
- Quadrature recorder: 2-channel quadrature decoder accepts inputs from external incremental encoder modules

## RCM3000 & 3100 General Purpose Development Kits

### RCM3000 RabbitCore™ 10Base-T Development Kit

The RCM3000 RabbitCore™ with 52 I/O lines is the most powerful and feature-packed 10Base-T Ethernet microprocessor core module.

### RCM3100 RabbitCore™ General Purpose Development Kit

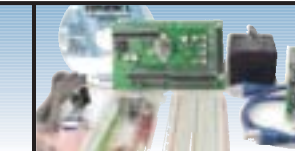
The RCM3100 RabbitCore™ with 54 I/O lines is ideal for non-Ethernet designs that need powerful embedded performance and a small footprint.

The RCM3000 & RCM3100 are ideal options for designers who want to rapidly develop and implement embedded systems with or without integrated Ethernet connectivity.

Both kits include the built-in RabbitCore™ low-EMI feature, including a clock spectrum spreader to help designers eliminate the kind of emissions-related problems that frequently derail tight development schedules. Additional features include a battery-backed real-time clock, glueless memory and I/O interfacing, a fully enabled slave port and an alternate I/O bus, which can be configured for 8 data lines and 6 address lines. Pin compatibility helps designers implement cost-effective 3.3V Ethernet and non-Ethernet systems without redesign.

Part No.	Description	Weight	Price
320733CH	RCM3000 ethernet enabled development kit	2.0 lbs. ....	\$294.99
320741CH	RCM3100 general purpose development kit	2.0 lbs. ....	226.95

See page 252-253 for Ethernet Starter and Microprocessor Starter Kits.



## RCM3200 10/100Base-T Development Kit

The RCM3200 RabbitCore™ microprocessor core module is a great choice for designers who want to rapidly implement embedded systems that require a fully integrated 10/100Base-T Ethernet connection. Additional features include a battery-backed real-time clock, glueless I/O interfacing, slave port and an alternate I/O bus.



Part No.	Description	Weight	Price
320979CH	RCM3200 ethernet enabled development kit	2.0 lbs. ....	\$331.55

## RCM3300 & 3360 Flash Development Kits

### The RCM3300 — Serial Flash Kit

The RCM3300 RabbitCore™ microprocessor core module is ideal for designers who want to rapidly develop serial flash into their embedded application. The RCM3300 offers 8MB of serial flash for data logging and file storage purposes.



### The RCM3360 Supports xD-Picture Cards™

The RCM3360 RabbitCore™ microprocessor core module presents a new form of embedded flexibility removable xD-Picture Cards. Supports 16MB of on board NAND Flash as well as memory cards of up to 128MB. The RabbitCore is perfect for large data applications requiring low-power operation.



Part No.	Description	Weight	Price
321082CH	RCM3300 serial flash development kit	2.0 lbs. ....	\$283.95
321613CH	RCM3360 NAND flash development kit	2.0 lbs. ....	378.95

## Comparison Chart for Rabbit Semiconductor Development Kits

Jameco Part No.	320733CH	320741CH	320979CH	321082CH	321613CH
Model No.	RCM3000	RCM3100	RCM3200	RCM3300	RCM3360
CPU Speed	29.4MHz	29.4MHz	44.2MHz	44.2MHz	44.2MHz
Ethernet	10Base-T, RJ-45, 2 LEDs	None	10/100Base-T, RJ-45, 3 LEDs	10/100Base-T, RJ-45, 3 LEDs	10/100Base-T, RJ-45, 3 LEDs
Flash Memory	512k (2 x 256kB)	512k (2 x 256kB)	512kB	512kB	512kB
SRAM	512kB	512kB	512kB program + 256kB data	512kB program + 512kB data	512kB program + 512kB data
Extended Memory	None	None	None	8MB Serial Flash	16MB NAND Flash Chip, xD Removable Flash Memory
General Purpose I/O	52 digital: 44 configurable, 4 fixed inputs, 4 fixed outputs	52 digital: 44 configurable, 4 fixed inputs, 4 fixed outputs	52 digital: 44 configurable, 4 fixed inputs, 4 fixed outputs	49 parallel digital: 43 configurable, 3 fixed inputs, 3 fixed outputs	52 parallel digital: 44 configurable, 4 fixed inputs, 4 fixed outputs
Analog Inputs	None	None	None	None	None
Additional Inputs	2 Startup mode, Reset	2 Startup mode, Reset	2 Startup mode, Reset	2 Startup mode, Reset	2 Startup mode, Reset
Additional Outputs	Status, Reset	Status, Reset	Status, Reset	Status, Reset	Status, Reset
External I/O	6 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr	6 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr	6 shared w/ I/O, 8 data, plus I/O Rd, I/O Wr	5 shared w/ I/O 8 data, plus I/O Rd, I/O Wr	5 shared w/ I/O 8 data, plus I/O Rd, I/O Wr
Serial Ports	Six 3.3V CMOS-compatible config. as asynchronous (with IrDA), 4 config. as clocked (SPI), 2 config. as SDLC/HDLC				
Power	3.15 - 3.45VDC @ 150mA	3.15 - 3.45VDC @ 75mA	3.15 - 3.45V @ 255mA	3.15 - 3.45VDC @ 350mA	3.15 - 3.45VDC @ 350mA
Board Size	2.73" x 1.85" x 0.86"	1.85" x 1.65" x 0.55"	2.73" x 1.85" x 0.86"	2.73" x 1.85" x 0.86"	2.73" x 1.85" x 0.86"
Connectors	Two 2 x 17.2mm IDC headers	Two 2 x 17.2mm IDC headers	Two 2 x 17.2mm IDC headers	Two 2 x 17.2mm IDC headers	Two 2 x 17.2mm IDC headers
Included	RabbitCore™ module, development board with prototyping area, Dynamic C development system and documentation on CD-ROM, serial cable, getting started manual, and AC adapter				

## RCM3400 Development Kit

The RCM3400 is based on the low-EMI Rabbit 3000 CPU running at 29.4MHz, with 512kB Flash and 512kB SRAM on board. The development board features a 10/100BaseT Ethernet connection and can be used as a reference design in conjunction with Dynamic C's royalty-free TCP/IP software libraries included in the development kit. Additional features include 5 serial ports and 8 analog inputs with programmable gain - all in an extremely small footprint! Each RCM3400 comes with a pre-assigned MAC ID, allowing it to be Ethernet ready.



**NEW**

Part No.	Description	Weight	Price
321031CH	RCM3400 analog development kit	2.0 lbs.	\$378.95

## RCM3600, 3700 & 3720 Combo Flash/10Base-T Kits

The RCM3600 and RCM3700/3720 RabbitCore™ development kits are the lowest priced Rabbit 3000 microprocessor based core modules designed for a wide variety of applications. Each is equipped with +5VDC tolerant I/O, quadrature encoder inputs, PWM outputs, and pulse capture and measurement capabilities.



321058CH

**NEW**



321074CH/321630CH

### Design Advantages:

- Ready-made platform for fast time-to-market; up to 3 months design integration time savings
- Exceptionally fast performance for math, logic, I/O
- Dynamic C® development environment for real-time development & debugging

Part No.	Description	Weight	Price
321058CH	RCM3600 above without ethernet	2.0 lbs.	\$226.95
321074CH	RCM3700 10Base-T enabled, 512kB SRAM kit	2.0 lbs.	\$283.95
321630CH	RCM3720 10Base-T enabled, 256kB SRAM kit	2.0 lbs.	\$188.95

## Commercial Customers

Open an account with us to consolidate your monthly billing and save time.

## GSM/GPRS and M2M Application Kits

This kit provides all the tools necessary to sample and develop applications that combine a Rabbit-based control device with a GSM/GPRS modem. The libraries and sample programs allow for a device connected to the cellular network to send SMS (text) messages to a RabbitCore Module (RCM) that can interpret messages as commands and in turn execute control functions. The RCM can also send/receive GPRS email wirelessly to/from any PC, GSM device, or cell phone. The LCD/keypad module included incorporates a menu system that provides for an easy interface to read or send text messages and email.



321584CH



321197CH

### Application Kit Highlights

- Hardware/Software for wireless RCM communication and control via GPRS/GSM
- GUI & Keypad configuration menu system
- Royalty-free TCP/IP stack in source code
- Sample programs/libraries for generic modem operation
- Fully integrated software: compiler, editor and debugger for control applications

Part No.	Description	Weight	Price
321584CH	GSM/GPRS app. kit w/ Enfora modem	2.0 lbs.	\$616.55
321197CH	Machine to Machine (M2M) kit w/ Wavecom modem	2.0 lbs.	\$663.95

## Secure Embedded Web Application Kit

This kit provides optimized software development tools to easily build secure web interfaces for your new and existing applications. Built around the RCM3700 RabbitCore, the Kit offers Secure Socket Layer (SSL), which implements a 128-bit lock and key solution to encrypt data transfers. Software bundles (RabbitWeb, FAT File System and Secure Socket Layer) included enable rapid development of secure web browser interfaces for embedded system control.



**NEW**

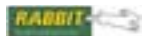
Part No.	Description	Weight	Price
321470CH	Secure Embedded Web Application Kit	2.0 lbs.	\$663.95

Imagine Tools Microprocessor and Ethernet Starter Kits, see pages 252 - 253.

## Comparison Chart for Rabbit Semiconductor Development Kits

Jameco Part No.	321031CH	321058CH	321074CH	321630CH
Model No.	RCM3400	RCM3600	RCM3700	RCM3720
CPU Speed	29.4MHz	22.1MHz	22.1MHz	22.1MHz
Ethernet	10/100Base-T, MAC ID installed	None	10Base-T, RJ-45	10Base-T, RJ-45
Flash Memory	512kB	512kB	512kB	512kB
SRAM	512kB	512kB	512kB	256kB
Extended Memory	None	None	1MB Serial Flash	1MB Serial Flash
General Purpose I/O	47 digital: 41 configurable, 3 fixed inputs, 3 fixed outputs	33 parallel digital: 31 configurable, 2 fixed outputs	33 parallel digital: 31 configurable, 2 fixed outputs	33 parallel digital: 31 configurable, 2 fixed outputs
Analog Inputs	8-channels single-ended (11-bit) or 4-channels differential (12-bit)	None	None	None
Additional Inputs	2 Startup mode, Reset In, CONVERT	Reset	Reset	None
Additional Outputs	Status, Reset, BVREF	None	None	None
External I/O	6 address (shared w/ I/O), 8 data, plus I/O Rd, I/O Wr	5 address (shared w/ I/O), 8 data, plus I/O Rd, I/O Wr	5 address (shared w/ I/O), 8 data, plus I/O Rd, I/O Wr	5 address (shared w/ I/O), 8 data, plus I/O Rd, I/O Wr
Serial Ports	5 CMOS-compatible: 4 configurable as asynchronous (with IrDA), 3 as clocked serial (SPI), and 2 as SDLC/HDLC (with IrDA), 1 asynchronous serial port (programming), support for MIR/SIR IrDA transceiver	Four 3.3V CMOS-compatible: 4 configurable as asynchronous (with IrDA), 3 as clocked serial (SPI) and 1 as SDLC/HDLC (with IrDA) or 1 SPI and 2SDLC/HDLC, 1 asynchronous serial port (programming)		
Power	3.0-3.45VDC @ 97mA (29.4MHz); 2.8-3.45VDC @ 57mA (14.7MHz)	4.75-12.6VDC @ 60mA (22.1MHz); 4.75-12.6VDC @ 38mA (11.06MHz)	4.75-5.25VDC @ 100mA (22.1MHz); 4.75-5.25VDC @ 78mA (11.06MHz)	4.75-5.25VDC @ 100mA (22.1MHz); 4.75-5.25VDC @ 78mA (11.06MHz)
Board Size	1.37" x 1.16" x 0.31"	2.10" x 1.20" x 0.62"	2.95" x 1.20" x 0.85"	2.95" x 1.20" x 0.85"
Connectors	Two 2 x 17 (1.27mm)	One 2 x 20, 0.10" IDC header	One 2 x 20, 0.10" IDC header	One 2 x 20, 0.10" IDC header
Included	RabbitCore™ module, development board with prototyping area, Dynamic C® development system and documentation on CD-ROM, serial cable, getting started manual, and AC adapter			





## Wi-Fi Application Kit

Jumpstart your wireless application design with a complete application kit. Integrating Wi-Fi (IEEE 802.11b) with a RabbitCore™ Development Kit, embedded system integrators can now enable a wireless embedded system.

Wireless connectivity eliminates ethernet cables allowing greater flexibility and mobility of wireless embedded networks. This kit provides all the tools necessary to sample and design communications from a Rabbit-based device to a Wi-Fi-enabled device (e.g. PC Laptop, PDA, etc.). The RCM can also send/receive email from any PC or device with a compatible Wi-Fi card. Includes Dynamic C® software with royalty-free TCP/IP stack.

Includes a Linksys Wi-Fi card, RCM3100 microprocessor core module, prototyping board, Dynamic C® development system and complete documentation on CD-ROM, serial cable for programming and debugging, 10-pin DB15 Conversion Cable, manuals and AC adapter (U.S./Canada only).

### Applications

- Wireless automation and control
- Convenient data and event logging
- Instrumentation monitoring

Part No.	Description	Weight	Price
321681CH	Wi-Fi Application Kit	2.0 lbs.	\$568.95

## 30-Day Money-Back Guarantee

If you're not satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 258.



## Multi-Port Serial to Ethernet Kit

Enable your customers to monitor your sensors from their desktop. The Rabbit Serial-to-Ethernet Kit provides the hardware and software necessary for sensors and other serial devices to communicate via a LAN or other network. This kit allows you to simultaneously connect several serial devices to a network. Implementation of the optional RabbitWeb software module makes it simple to web-enable your application to allow monitoring and control of serial devices via the internet or intranet. Other optional software modules help to secure your data through SSL and encryption.

Sample application programs guide you through serial to Ethernet conversion. This kit also includes a prototyping board, Dynamic C® development environment including a royalty-free TCP/IP stack with source code, sample applications, temperature sensor demoboard, required cables, and assorted accessories. The sample applications highlight functionality such as RS-232 to Ethernet conversion, RS-485 to ethernet conversion, ethernet to serial conversion, data gathering from serial devices such as the included temperature sensor demoboard and a digital voltmeter (not included), and web-enabling applications.

### Features

- Serial to ethernet applications for: digital voltmeter and temperature sensor reader and binary and hexadecimal ASCII
- Royalty-free TCP/IP stack with source code
- Configuration menu system

### Design Advantages

- Minimal ethernet experience required
- 3 step setup
- Software compatible with other Rabbit-based products

Part No.	Description	Weight	Price
321656CH	Multi-Port serial to ethernet app. kit	2.0 lbs.	\$375.25

NEW



## BASIC Stamps

BASIC Stamps are small computers using a variation of BASIC called PBASIC. They are ideal for controller apps including robotics, radio-controlled interface of a digital camera, industrial pallet stacker, health monitoring systems, and much more. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines. Each can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Both allow you to store data in the EEPROM before downloading a BASIC program.

**Includes:** Embedded BASIC plus instruction sets; basic interpreter, EEPROM (non-volatile), a resonator and 5V regulator

Specifications:	127693CH	130892CH
EEPROM	256 bytes	2048 bytes
RAM	16 bytes	32 bytes
Cur. Draw @ 5V	2mA run/20µA	8mA run/100µA
Microcontroller	PIC16C56	PIC16C57
Program speed	2000/sec.	4000/sec.
# of I/O Pins	8	16 + 2 serial
Package	14-pin SIP	24-pin DIP
Volts Required	5-15VDC	5-15VDC
Size	1.4"L x 0.4"W	1.2"L x 0.6"W

Part No.	Parallax No.	1	10
127693CH	BS1-IC	\$28.95	\$28.29
130892CH	BS2-IC	48.95	43.95



See page 188 for Serial LCD Modules

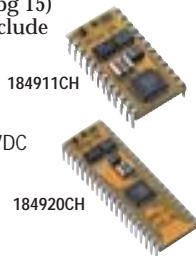


## BASIC Stamp 2P Modules

In addition to the BS2-SX (pg 15) features, these modules include commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.

- Voltage requirements: 5-12VDC
  - Program execution speed: 12,000 instructions/sec.
  - RAM size: 38 bytes (12 I/O, 26 variable)
  - Scratch pad RAM: 128 bytes
  - EEPROM program size: 2k x 8, 4,000 instructions
  - Current draw @ 5V: 40mA run; 400µA sleep
- 184911CH:** Number of I/O pins: 16 + 2 serial  
**184920CH:** Number of I/O pins: 32 + 2 serial

Part No.	Parallax No.	1	10
184911CH	BS2P24-IC 24-pin	\$78.95	\$70.95
184920CH	BS2P40-IC 40-pin	87.95	79.95



## 50MHz BASIC Stamp 2SX Module

High-speed version of BS2-IC.

- Volts required: 5-12 VDC
- RAM size: 32 bytes
- Scratch pad RAM: 64 bytes
- Microcontroller: Ubicom SX28AC
- Number of I/O pins: 16 + 2 serial
- EEPROM program size: 8 x 2k bytes, 4,000 instr.
- Program execution speed: 10,000 instructions/sec.
- Current draw @ 5V: 60mA run; 200µA sleep

Part No.	Parallax No.	1	10
159775CH	BS2SX-IC 24-pin	\$58.95	\$52.95

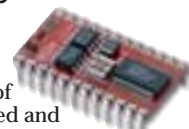


## BS2E-IC Basic Stamp Module

The BS2E-IC runs at the same speed as BASIC Stamp 2, but has the RAM and EEPROM size benefits of the BS2-SX, without the speed and power consumption. Ideal for those who use the BS2 and would like more variable or program space. Programmed in Windows®.

- EEPROM (program) size: 2k x 8, ~ 4,000 instructions
- RAM: 32 bytes (6 I/O, 26 variable)
- Current draw @ 5V: 20mA run/100µA sleep
- Microcontroller: Scenix SX28AC
- Program speed: 4,000 instructions / sec
- Number of I/O pins: 16 + 2 dedicated serial
- Voltage requirement: 5-12VDC
- Package: DIP-24

Part No.	Parallax No.	1	10
283047CH	BS2E-IC	\$53.95	\$51.95



## BASIC Stamp 2 OEM Kit

A through-hole version of the popular BASIC Stamp modules.

- 20-pin SIP, standard 0.1" spacing
- PC board includes labeled component locations with visible traces between parts
- PBASIC interpreter and EEPROM are socketed to allow for replacement
- Programmed using PBASIC DOS or Windows®

**Includes:** PBASIC interpreter, EEPROM, resonator, DB-9, resistors and transistors

Part No.	Parallax No.	1	10
183071CH	27291 BASIC® Stamp 2 kit	\$44.95	\$42.95



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Stamp Microcontrollers



### 80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter. 256 x 8-bit RAM

- Hardware:** • On-chip oscillator & clock circuit • Operates DC to 12MHz  
**Software:** • Full BASIC interpreter in ROM on a single chip  
 • "Stand-alone" software development  
 • Interrupts can be handled by BASIC or Assembly Language

Part No.	Product No.	Description	1	10	100
125647CH	80C52BASIC	40-pin CPU 8-bit CMOS w/ BASIC interpreter	\$32.09	\$28.89	\$25.99



### 50MIPS SX Microcontroller

Part No.	Parallax No.	Description	1	10	100
162931CH	SX28AC/DP	DIP-28 50MIPS SX microcontroller	\$4.99	\$4.89	\$4.79
283063CH	SX48BD	POF-48 flash RAM	7.29	7.25	7.19

## Voice Chips



### Single-Chip Voice Record/Playback Devices

#### 10 to 120 Second Durations (28-pin DIP)

- Manual switch or microprocessor controllable
- Directly cascable for longer durations
- Fully addressable to handle multiple messages
- On-chip automatic gain control (AGC) and clock source
- 100k record cycles (typical)
- 1 µA standby current (typical)
- Typical 100k record cycles, 1µA standby current, and 100 year message retention
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Playback can be edge or level-activated
- 100-year message retention (typical)



107334CH

Part No.	Product No.	Description	1	10	50
141671CH	ISD1110P	Voice record/playback (10 sec.)	\$5.99	\$5.75	\$5.49
107334CH	ISD1420P	Voice record/playback (20 sec.)	5.39	5.09	4.89
120643CH	ISD2560P	Voice record/playback (60 sec.)	9.19	8.59	7.79
120660CH	ISD2590P	Voice record/playback (90 sec.)	14.09	12.29	11.69
141655CH	ISD25120P	Voice record/playback (120 sec.)	14.09	11.49	8.45

## PALs and GALs



Part No.	Cross Ref.	Pkg.	Description	1	10	100
27748CH	N82S100	DIP-28	16 x 48 x 8 field-prog. logic array, 3-st.	\$14.95	\$13.49	\$12.15
28020CH	PAL16L8	DIP-20	Octal 16-input AND-OR-INVERT gate array	2.25	1.75	1.66
88399CH	16V8-10*	DIP-20	10ns 64 x 32 AND array	2.59	2.35	2.10
37452CH	16V8-15*	DIP-20	15ns 64 x 32 AND array	1.39	1.25	1.12
37461CH	16V8-25*	DIP-20	25ns 64 x 32 AND array	1.25	1.09	.99
88292CH	20V8-10**	DIP-24	10ns 64 x 40 AND array	1.85	1.60	1.43
38658CH	20V8-15**	DIP-24	15ns 64 x 40 AND array	1.55	1.25	1.15
38666CH	20V8-25**	DIP-24	25ns 64 x 40 AND array	1.69	1.49	1.39
235352CH	20VP8-25LJ	PLCC-28	25ns 64 x 40 AND array	3.79	2.89	2.39
123801CH	22V10-10	DIP-24	10ns 132 x 44 AND array	5.49	4.99	4.49
39159CH	22V10-15	DIP-24	15ns 132 x 44 AND array	4.49	3.95	3.55
39167CH	22V10-25	DIP-24	25ns 132 x 44 AND array	3.99	3.49	3.09

GALs are electrically erasable PLDs that can be used in place of numerous PALs

\* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6, 16RP8

\*\* Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8



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## Anachip PEEL™ PLDs



Programmable Electrically Erasable Logic (PEEL\*) devices from Anachip are drop-in replacements for Cypress, Atmel, Altera, Lattice and National PLDs, PALs and GALs\*. PEELs offer the convenience of simple and complex logic reprogrammability.

\* I = Industrial Temp range: -40°C to +85°C; C = Commercial Temp. range: 0 to +70°C



Part No.	Product No.*	Pkg.	Speed	Icc	Inputs	I/O	Vcc	Temp.†	1	10	100
312987CH	16CV8J-25	PLCC-20	25ns	12mA	10	8	5	C	\$1.19	\$1.07	\$0.99
312995CH	16CV8P-25	DIP-20	25ns	12mA	10	8	5	C	1.19	.82	.74
313007CH	16CV8S-25	PLCC-20	25ns	12mA	10	8	5	C	1.59	1.08	.97
314675CH	18CV8J-10	PLCC-20	10ns	10mA	10	8	5	C	2.75	1.85	1.65
313761CH	18CV8J-15	PLCC-20	15ns	10mA	10	8	5	C	1.99	1.69	1.49
313058CH	18CV8J-25	PLCC-20	25ns	10mA	10	8	5	C	1.89	1.39	1.25
313795CH	18CV8J-15	PLCC-20	15ns	10mA	10	8	5	I	2.99	1.99	1.82
313066CH	18CV8J-25	PLCC-20	25ns	10mA	10	8	5	I	2.49	1.69	1.55
314801CH	18CV8P-7	DIP-20	7ns	42mA	10	8	5	C	3.05	2.05	1.85
314721CH	18CV8P-10	DIP-20	10ns	42mA	10	8	5	C	2.69	1.79	1.65
314739CH	18CV8P-10	DIP-20	10ns	42mA	10	8	5	I	3.19	2.15	1.95
314659CH	18CV8P-15L+‡	DIP-20	15ns	25mA	10	8	5	C	1.85	1.59	1.45
105953CH	18CV8P-25	DIP-20	25ns	25mA	10	8	5	C	2.25	1.99	1.79
313074CH	18CV8P-25L+‡	DIP-20	25ns	10mA	10	8	5	I	1.89	1.59	1.40
314747CH	18CV8S-10	SOIC-20	10ns	42mA	10	8	5	C	2.55	1.71	1.69
314077CH	18CV8S-15L+‡	SOIC-20	15ns	25mA	10	8	5	C	2.55	1.69	1.55
313242CH	18CV8S-25	SOIC-20	25ns	10mA	10	8	5	C	2.15	1.45	1.29
313251CH	18CV8S-25	SOIC-20	25ns	10mA	10	8	5	I	2.59	1.69	1.55
313349CH	18CV8T-25L+‡	TSSOP-20	25ns	10mA	10	8	5	C	2.45	1.65	1.49
313365CH	18CV8ZJ-25	PLCC-20	25ns	10uA	10	8	5	C	3.79	2.55	2.29
313373CH	18CV8ZJ-25	PLCC-20	25ns	10uA	10	8	5	I	4.59	3.09	2.79
313381CH	18CV8ZP-25L+‡	DIP-20	25ns	10uA	10	8	5	C	3.65	2.45	2.19
313509CH	18CV8ZP-25	DIP-20	25ns	10uA	10	8	5	I	4.39	2.95	2.59
313525CH	18CV8ZS-25	SOIC-20	25ns	10uA	10	8	5	C	3.75	2.49	2.29
313699CH	18LV8ZJ-25	PLCC-20	25ns	5uA	10	8	3	C	4.19	2.84	2.55
313701CH	18LV8ZP-25	DIP-20	25ns	5uA	10	8	3	C	3.99	2.69	2.39
313752CH	18LV8ZT-25	TSSOP-20	25ns	5uA	10	8	3	C	4.35	2.95	2.65
313015CH	18LV8ZJ-35	PLCC-20	35ns	5uA	10	8	3	I	4.99	3.39	3.05
313023CH	18LV8ZP-35	DIP-20	35ns	5uA	10	8	3	I	4.79	3.19	2.89
313031CH	18LV8ZSI-35	SOIC-20	35ns	5uA	10	8	3	I	4.89	3.29	2.99
313040CH	18LV8ZTI-35	TSSOP-20	35ns	5uA	10	8	3	I	5.19	3.49	3.15
315336CH	22CV10AJ-7	PLCC-28	7ns	50mA	12	10	5	C	4.45	3.35	2.55
315184CH	22CV10AJ-10	PLCC-28	10ns	50mA	12	10	5	C	3.65	2.95	2.25
315109CH	22CV10AJ-15	PLCC-28	15ns	35mA	12	10	5	C	3.45	2.59	1.99
314860CH	22CV10AJ-25	PLCC-28	25ns	18mA	12	10	5	C	3.35	2.49	1.89
315361CH	22CV10AP-7	DIP-24	7ns	50mA	12	10	5	C	4.29	3.19	2.45
315205CH	22CV10AP-10L+‡	DIP-24	10ns	50mA	12	10	5	C	2.85	2.45	2.09
315125CH	22CV10AP-15L+‡	DIP-24	15ns	35mA	12	10	5	C	3.39	2.55	1.95
105996CH	22CV10AP-25	DIP-24	25ns	5uA	12	10	5	C	2.59	2.35	2.05
314886CH	22CV10AP-25	DIP-24	25ns	18mA	12	10	5	I	2.85	2.45	1.99
314931CH	22CV10AZJ-25	PLCC-28	25ns	10uA	12	10	5	C	3.75	2.85	2.39
314940CH	22CV10AZJ-25	PLCC-28	25ns	10uA	12	10	5	I	6.85	5.19	3.95
314958CH	22CV10AZP-25	DIP-24	25ns	10uA	12	10	5	C	5.35	3.89	3.09
314991CH	22CV10AZT-25	TSSOP-24	25ns	10uA	12	10	5	C	5.79	4.39	3.35
315002CH	22CV10AZTI-25	TSSOP-24	25ns	10uA	12	10	5	I	6.95	5.29	4.05
315011CH	22LV10AZJ-25	PLCC-28	25ns	5uA	12	10	3	C	6.15	4.65	3.55
315029CH	22LV10AZP-25	DIP-24	25ns	5uA	12	10	3	C	5.89	4.45	3.39
315045CH	22LV10AZT-25	TSSOP-24	25ns	5uA	12	10	3	C	6.29	4.79	3.65
316857CH	PA7540P-15	DIP-24	15ns	55mA	2	20	5	C	8.09	6.09	4.69
316902CH	PA7540J-15	PLCC-28	15ns	55mA	2	20	5	C	8.25	6.19	4.75
317032CH	PA7536J-15	PLCC-28	15ns	45mA	14	12	5	C	7.29	5.49	4.19
317075CH	PA7572P-20	DIP-40	20ns	50mA	14	24	5	C	8.99	6.79	5.19
317104CH	PA7572J-20	PLCC-44	20ns	50mA	14	24	5	C	8.99	6.79	5.19

\* For a device cross reference list, please go to our website and simply enter any of the above part numbers in our search engine.

+ Lead-free

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 74AC(T)XXX Advanced CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba
AC(T)	DIP	SN74AC(T)XXXN	74AC(T)XXXN	74AC(T)XXXPC	MC74AC(T)XXXN	74AC(T)XXXB	74AC(T)XXXN	TC74AC(T)XXXP
	DIP	CD74AC(T)XXE	74AC(T)XXXN	74AC(T)XXXPC	MC74AC(T)XXXN	74AC(T)XXXB	74AC(T)XXXN	TC74AC(T)XXXP
	SOIC	SN74AC(T)XXD/DW	74AC(T)XXXM	74AC(T)XXSC	MC74AC(T)XXD/DW	74AC(T)XXXM	74AC(T)XXD	TC74AC(T)XXFN/FW
	SOIC	CD74AC(T)XXXM	74AC(T)XXXM	74AC(T)XXSC	MC74AC(T)XXD/DW	74AC(T)XXXM	74AC(T)XXD	TC74AC(T)XXFN/FW

## 74AC Series – AC family offers CMOS inputs with CMOS outputs

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Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74AC00	SOIC-14	Quad 2-input NAND gate	263880CH	SN74AC00D	..... *	\$ .16 \$ .156
74AC00	DIP-14	Quad 2-input NAND gate	256858CH	SN74AC00N	..... .28 .26	.18
74AC02	SOIC-14	Quad 2-input NOR gate	264090CH	SN74AC02M	..... .26 .23	.17
74AC02	DIP-14	Quad 2-input NOR gate	256891CH	CD74AC02E	..... .29 .26	.24
74AC04	SOIC-14	Hex inverter	264111CH	SN74AC04D	..... *	.17 .15
74AC04	DIP-14	Hex inverter	256903CH	SN74AC04N	..... .26 .25	.202
74AC08	SOIC-14	Quad 2-input AND gate	264137CH	SN74AC08D	..... .26 .23	.18
74AC08	DIP-14	Quad 2-input AND gate	256911CH	SN74AC08N	..... .41 .35	.26
74AC10	SOIC-14	Triple 3-input NAND gate	264153CH	SN74AC10D	..... .26 .23	.175
74AC10	DIP-14	Triple 3-input NAND gate	256920CH	SN74AC10N	..... .41 .35	.25
74AC11	SOIC-14	Triple 3-input AND gate	264170CH	SN74AC11D	..... .32 .26	.18
74AC11	DIP-14	Triple 3-input AND gate	256938CH	SN74AC11N	..... .32 .26	.18
74AC14	SOIC-14	Hex inverter with Schmitt trigger input	264209CH	SN74AC14D	..... .20 .17	.15
74AC14	DIP-14	Hex inverter with Schmitt trigger input	261366CH	SN74AC14N	..... .23 .21	.20
74AC20	SOIC-14	4-input NAND gate	264233CH	CD74AC20M	..... .26 .23	.18
74AC20	DIP-14	4-input NAND gate	261382CH	CD74AC20N	..... .39 .32	.22
74AC32	SOIC-14	Quad 2-input OR gate	264268CH	SN74AC32D	..... .26 .23	.18
74AC32	DIP-14	Quad 2-input OR gate	261391CH	SN74AC32N	..... .41 .34	.25
74AC74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	264284CH	SN74AC74D	..... .31 .26	.193
74AC74	DIP-14	Dual D-type pos. edge-triggered flip-flop	261403CH	SN74AC74N	..... .40 .34	.24
74AC86	SOIC-14	Quad 2-input exclusive OR gate	264305CH	SN74AC86D	..... .20 .17	.14
74AC86	DIP-14	Quad 2-input exclusive OR gate	261454CH	SN74AC86N	..... .32 .26	.18
74AC109	SOIC-16	Dual JK positive edge triggered flip-flop				
74AC109	DIP-16	Dual JK positive edge triggered flip-flop	261462CH	CD74AC109E	..... .47 .40	.29
74AC125	SOIC-16	Quad buffer with 3-state outputs				
74AC125	DIP-14	Quad buffer with 3-state outputs				
74AC138	SOIC-16	1 of 8 decoder/demultiplexer	264364CH	CD74AC138M	..... .41 .34	.23
74AC138	DIP-16	1 of 8 decoder/demultiplexer	261471CH	CD74AC138E	..... .46 .35	.27
74AC139	SOIC-16	Dual 1 of 4 decoder/demultiplexer	264508CH	CD74AC139M	..... .56 .43	.32
74AC139	DIP-16	Dual 1 of 4 decoder/demultiplexer	261500CH	CD74AC139E	..... .49 .41	.29
74AC151	SOIC-16	Quad buffer with 3-state outputs				
74AC151	DIP-16	Quad buffer with 3-state outputs	261526CH	CD74AC151E	..... .46 .35	.26
74AC153	SOIC-16	Dual 4-input multiplexer	264532CH	CD74AC153M	..... .42 .36	.26
74AC153	DIP-16	Dual 4-input multiplexer	261534CH	CD74AC153E	..... .49 .41	.29
74AC157	SOIC-16	Quad 2-input multiplexer	264559CH	CD74AC157M	..... .41 .38	.34
74AC157	DIP-16	Quad 2-input multiplexer	261542CH	CD74AC157E	..... .47 .36	.27
74AC161	SOIC-16	Synchronous presettable binary counter	264575CH	CD74AC161M	..... .41 .37	.33
74AC161	DIP-16	Synchronous presettable binary counter	261551CH	CD74AC161E	..... .46 .35	.26
74AC163	SOIC-16	Binary counter	264591CH	CD74AC163M	..... .49 .41	.36
74AC163	DIP-16	Binary counter	261585CH	CD74AC163E	..... .50 .38	.29
74AC169	SOIC-16	4-stage synchronous bidirectional counter				
74AC169	DIP-16	4-stage synchronous bidirectional counter				
74AC174	SOIC-16	HEX D-type flip-flop w/ master reset	264858CH	CD74AC174M	..... .46 .35	.27
74AC174	DIP-16	HEX D-type flip-flop w/ master reset	261593CH	CD74AC174E	..... .50 .38	.29
74AC175	SOIC-16	Quad D-type flip-flop	264874CH	CD74AC175M	..... .46 .35	.26
74AC175	DIP-16	Quad D-type flip-flop				
74AC191	SOIC-16	Up/down counter w/ preset & ripple clock				
74AC191	DIP-16	Up/down counter w/ preset & ripple clock				
74AC240	SOIC-20	Octal buffer/line driver w/ 3-state outputs	264971CH	SN74AC240DW	..... .45 .36	.28
74AC240	DIP-20	Octal buffer/line driver w/ 3-state outputs	261614CH	SN74AC240N	..... .32 .264	.239
74AC241	SOIC-20	Octal buffer/line driver w/ 3-state outputs	265543CH	SN74AC241DW	..... .45 .36	.28

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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Part No.	Cross Ref.	1	10	100
263871CH	74AC00M	..... *	\$ .15 \$ .14	
211801CH	74AC00N	..... .24 .20	.15	
264081CH	74AC02M	..... .24 .21	.157	
211810CH	74AC02N	..... .20 .17	.13	
264102CH	74AC04M	..... *	.16 .13	
211828CH	74AC04N	..... \$4.25 .24 .20	.15	
264129CH	74AC08M	..... .24 .21	.157	
211836CH	74AC08N	..... .20 .17	.13	
264145CH	74AC10M	..... .24 .21	.157	
238887CH	74AC10N	..... .31 .26	.20	
264161CH	74AC11M	..... .30 .23	.17	
238895CH	74AC11N	..... .32 .261	.176	
264196CH	74AC14M	..... *	.149 .13	
211844CH	74AC14N	..... .21 .18	.13	
264225CH	74AC20M	..... .24 .21	.157	
238836CH	74AC20N	..... .35 .30	.22	
264241CH	74AC32M	..... .24 .21	.16	
211852CH	74AC32N	..... .21 .18	.143	
264276CH	74AC74M	..... .28 .24	.17	
211861CH	74AC74N	..... .37 .30	.221	
264292CH	74AC86M	..... *	.149 .13	
211879CH	74AC86N	..... .29 .26	.22	
264313CH	74AC109M	..... .45 .39	.29	
238908CH	74AC109N	..... .43 .37	.269	
264321CH	74AC125M	..... .48 .36	.27	
238916CH	74AC125N	..... .38 .329	.249	
264348CH	74AC138M	..... .38 .31	.21	
211887CH	74AC138N	..... .43 .329	.249	
264495CH	74AC139M	..... .51 .39	.29	
238730CH	74AC139N	..... .44 .329	.249	
264516CH	74AC151M	..... .39 .32	.24	
238748CH	74AC151N	..... .42 .32	.24	
264524CH	74AC153M	..... .39 .32	.24	
238756CH	74AC153N	..... .44 .37	.27	
264541CH	74AC157M	..... .38 .32	.24	
238764CH	74AC157N	..... .43 .32	.24	
264567CH	74AC161M	..... .31 .27	.24	
238772CH	74AC161N	..... .51 .39	.294	
264583CH	74AC163M	..... .44 .37	.27	
238781CH	74AC163N	..... .46 .35	.27	
265818CH	74AC169M	..... .68 .57	.47	
238799CH	74AC169N	..... .93 .84	.77	
264840CH	74AC174M	..... .42 .32	.24	
238801CH	74AC174N	..... .46 .35	.27	
264866CH	74AC175M	..... .42 .32	.24	
238810CH	74AC175N	..... .51 .382	.295	
264903CH	74AC191M	..... 1.15 .98	.80	
238828CH	74AC191N	..... .89 .76	.61	
264938CH	74AC240M	..... .41 .33	.25	
211895CH	74AC240N	..... .30 .241	.218	
265535CH	74AC241M	..... .41 .33	.25	



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Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74AC241	DIP-20	Octal buffer/line driver w/ 3-state outputs	261729CH	SN74AC241N	.45	.364 .276
74AC244	SOIC-20	Octal buffer/line driv. w/ 3-st. outputs	265560CH	SN74AC244DW	.45	.36 .28
74AC244	DIP-20	Octal buffer/line driv. w/ 3-st. outputs	261796CH	SN74AC244N	.36	.30 .258
74AC245	SOIC-20	Octal bidirectional trans. w/ 3-state I/O	265594CH	SN74AC245DW	.45	.36 .28
74AC245	DIP-20	Octal bidirectional trans. w/ 3-state I/O	261817CH	SN74AC245N	.40	.35 .33
74AC251	SOIC-16	8-input multiplexer w/ 3-state output	265615CH	CD74AC251M	.54	.47 .39
74AC251	DIP-16	8-input multiplexer w/ 3-state output				
74AC253	SOIC-16	Dual 4-input multiplexer w/ 3-state outputs	265640CH	CD74AC253M	.49	.37 .28
74AC253	DIP-16	Dual 4-input multiplexer w/ 3-state outputs				
74AC257	SOIC-16	Quad 2-input multiplexer	265666CH	CD74AC257M	.41	.37 .28
74AC257	DIP-16	Quad 2-input multiplexer	261956CH	CD74AC257E	.41	.38 .36
74AC273	SOIC-20	Octal D-type flip-flop	265682CH	CD74AC273M	.56	.53 .46
74AC273	DIP-20	Octal D-type flip-flop	261964CH	CD74AC273E	.44	.38 .37
74AC299	SOIC-20	8-input univ. shift/storage reg. w/com. parallel I/O pins				
74AC299	DIP-20	8-input univ. shift/storage reg. w/com. parallel I/O pins				
74AC373	SOIC-20	Octal transparent latch w/ 3-state outputs	265703CH	SN74AC373DW	.56	.52 .49
74AC373	DIP-20	Octal transparent latch w/ 3-state outputs	261981CH	SN74AC373N	.54	.38 .32
74AC374	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	265720CH	SN74AC374DW	.30	.29 .27
74AC374	DIP-20	Octal D-type flip-flop w/ 3-state outputs	262035CH	SN74AC374N	.65	.59 .53
74AC377	SOIC-20	Octal D-type flip flop w/ clock enable				
74AC377	DIP-20	Octal D-type flip flop w/ clock enable				
74AC399	DIP-16	Quad 2-port register				
74AC521	SOIC-20	8-bit identity comparator				
74AC521	DIP-20	8-bit identity comparator				
74AC540	SOIC-20	Octal buffer/line driver w/ 3-state outputs	265746CH	CD74AC540M	.83	.74 .60
74AC540	DIP-20	Octal buffer/line driver w/ 3-state outputs				
74AC541	SOIC-20	Octal buffer/line driver w/ 3-state outputs	265762CH	CD74AC541M	.83	.74 .59
74AC541	DIP-20	Octal buffer/line driver w/ 3-state outputs	262051CH	CD74AC541E	.83	.66 .50
74AC573	SOIC-20	Octal latch w/ 3-state outputs	265789CH	CD74AC573DW	.45	.36 .28
74AC573	DIP-20	Octal latch w/ 3-state outputs	262086CH	SN74AC573N	.48	.40 .302
74AC574	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	265800CH	SN74AC574DW	.45	.36 .28
74AC574	DIP-20	Octal D-type flip-flop w/ 3-state outputs	262094CH	SN74AC574N	.63	.56 .49



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Part No.	Cross Ref.	1	10	100
238844CH	74AC241N	.41	.33	.25
265551CH	74AC244M	.41	.33	.25
211908CH	74AC244N	.33	.28	.21
265586CH	74AC245M	.41	.33	.25
211916CH	74AC245N	.36	.33	.28
265607CH	74AC251M	.49	.43	.35
238852CH	74AC251N	.44	.329	.249
265623CH	74AC253M	.44	.34	.25
238861CH	74AC253N	.42	.32	.24
265658CH	74AC257M	.38	.32	.25
238879CH	74AC257N	.38	.35	.33
265674CH	74AC273M	.51	.48	.45
211924CH	74AC273N	.40	.34	.26
265826CH	74AC299M	1.79	1.45	1.09
238924CH	74AC299N	1.35	1.25	1.05
265691CH	74AC373M	.51	.48	.45
211932CH	74AC373N	.40	.36	.32
265711CH	74AC374M	.30	.29	.25
211941CH	74AC374N	.51	.43	.323
265851CH	74AC377M	.66	.61	.54
242763CH	74AC377N	.71	.54	.328
238941CH	74AC399N	1.85	1.69	1.52
265869CH	74AC521M	.96	.88	.76
238959CH	74AC521N	.98	.71	.54
265738CH	74AC540M	.75	.67	.55
238967CH	74AC540N	.54	.46	.34
265754CH	74AC541M	.75	.67	.55
238975CH	74AC541N	.59	.50	.38
265771CH	74AC573M	.41	.33	.25
238983CH	74AC573N	.44	.37	.28
265797CH	74AC574M	.41	.33	.25
238991CH	74AC574N	.57	.48	.36



## 74ACT Series – ACT family offers TTL inputs with CMOS outputs

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Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74ACT00	SOIC-14	Quad 2-input NAND gate	265885CH	SN74ACT00D	.20	.19 .16
74ACT00	DIP-14	Quad 2-input NAND gate	262326CH	SN74ACT00N	.28	.24 .20
74ACT02	SOIC-14	Quad 2-input NOR gate	265922CH	CD74ACT02M	.22	.20 .16
74ACT02	DIP-14	Quad 2-input NOR gate	262334CH	CD74ACT02E	.40	.324 .238
74ACT04	SOIC-14	Hex inverter	265949CH	SN74ACT04D	.22	.20 .16
74ACT04	DIP-14	Hex inverter	262342CH	SN74ACT04N	.28	.22 .18
74ACT08	SOIC-14	Quad 2-input AND gate	266141CH	SN74ACT08D	.20	.178 .15
74ACT08	DIP-14	Quad 2-input AND gate	262351CH	SN74ACT08N	.39	.313 .222
74ACT10	SOIC-14	Triple 3-input NAND gate	266271CH	SN74ACT10D	.29	.26 .20
74ACT10	DIP-14	Triple 3-input NAND gate	262369CH	SN74ACT10N	.22	.20 .16
74ACT14	SOIC-14	Hex inverter with Schmitt trigger input	266301CH	SN74ACT14D	.22	.18 .16
74ACT14	DIP-14	Hex inverter with Schmitt trigger input	262377CH	SN74ACT14N	.25	.20 .16
74ACT32	SOIC-14	Quad 2-input OR gate	266378CH	SN74ACT32D	.22	.20 .16
74ACT32	DIP-14	Quad 2-input OR gate	262465CH	SN74ACT32N	.36	.302 .227
74ACT74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	266431CH	SN74ACT74D	.30	.26 .19
74ACT74	DIP-14	Dual D-type pos. edge-triggered flip-flop	262473CH	SN74ACT74N	.28	.24 .20
74ACT86	SOIC-14	Quad 2-input exclusive OR gate	266458CH	SN74ACT86D	.31	.29 .20
74ACT86	DIP-14	Quad 2-input exclusive OR gate	262481CH	SN74ACT86N	.22	.20 .16
74ACT125	SOIC-14	Quad buffer with 3-state outputs				
74ACT125	DIP-14	Quad buffer with 3-state outputs				

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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Part No.	Cross Ref.	1	10	100
265877CH	74ACT00M	*	.17	.14
211959CH	74ACT00N	.25	.21	.156
265914CH	74ACT02M	.20	.18	.14
211967CH	74ACT02N	.37	.30	.22
265957CH	74ACT04M	.20	.18	.14
211975CH	74ACT04N	.25	.21	.16
266159CH	74ACT08M	*	.17	.13
211983CH	74ACT08N	.36	.29	.206
266263CH	74ACT10M	.26	.23	.19
239046CH	74ACT10N	.20	.17	.13
266298CH	74ACT14M	.20	.18	.14
211991CH	74ACT14N	.23	.21	.18
266360CH	74ACT32M	.20	.18	.14
212003CH	74ACT32N	.33	.28	.21
266423CH	74ACT74M	.27	.23	.176
212011CH	74ACT74N	.25	.21	.16
266440CH	74ACT86M	.28	.27	.19
212020CH	74ACT86N	.20	.17	.128
266466CH	74ACT125M	.86	.73	.59
239003CH	74ACT125N	.32	.27	.20

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SOIC



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Quantity SAVE

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Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74ACT138	SOIC-16	1 of 8 decoder/demultiplexer	266482CH	CD74ACT138M	.35	.32 .24
74ACT138	DIP-16	1 of 8 decoder/demultiplexer	262490CH	CD74ACT138E	.35	.30 .21
74ACT139	SOIC-16	Dual 1 of 4 decoder/demultiplexer	266503CH	CD74ACT139M	.41	.33 .25
74ACT139	DIP-16	Dual 1 of 4 decoder/demultiplexer	262502CH	CD74ACT139E	.41	.33 .23
74ACT151	SOIC-16	8-input multiplexer				
74ACT151	DIP-16	8-input multiplexer				
74ACT157	SOIC-16	Quad 2-input multiplexer	266538CH	CD74ACT157M	.32	.28 .25
74ACT157	DIP-16	Quad 2-input multiplexer	262529CH	CD74ACT157E	.47	.355 .26
74ACT161	SOIC-16	Synchronous binary counter	266554CH	CD74ACT161M	.69	.63 .51
74ACT161	DIP-16	Synchronous binary counter	262676CH	CD74ACT161E	.43	.35 .29
74ACT163	SOIC-16	Synchronous presettable binary counter	266571CH	CD74ACT163M	.43	.32 .25
74ACT163	DIP-16	Synchronous presettable binary counter	262684CH	CD74ACT163E	.54	.41 .31
74ACT174	SOIC-16	HEX D-type flip-flop with master reset	266634CH	CD74ACT174M	.41	.38 .36
74ACT174	DIP-16	HEX D-type flip-flop with master reset	262692CH	CD74ACT174E	.53	.46 .34
74ACT175	SOIC-16	Quad D-type flip-flop	266685CH	CD74ACT175M	.60	.54 .43
74ACT175	DIP-16	Quad D-type flip-flop	262799CH	CD74ACT175E	.60	.54 .43
74ACT240	SOIC-20	Octal buffer/line driv. w/ 3-st. outputs	266749CH	CD74ACT240DW	.50	.41 .31
74ACT240	DIP-20	Octal buffer/line driv. w/ 3-st. outputs	262828CH	CD74ACT240N	.32	.28 .24
74ACT241	SOIC-20	Octal buffer/line driver with 3-state outputs	266773CH	SN74ACT241DW	.45	.36 .28
74ACT241	DIP-20	Octal buffer/line driver with 3-state outputs	263038CH	SN74ACT241N	.45	.36 .28
74ACT244	SOIC-20	Octal buffer/line driv. w/ 3-st. outputs	266909CH	SN74ACT244DW	.35	.30 .26
74ACT244	DIP-20	Octal buffer/line driv. w/ 3-st. outputs	263046CH	SN74ACT244N	.50	.377 .286
74ACT245	SOIC-20	Octal bidirectional trans. w/ 3-state I/O	266925CH	SN74ACT245DW	.44	.36 .28
74ACT245	DIP-20	Octal bidirectional trans. w/ 3-state I/O	263062CH	SN74ACT245N	.41	.37 .35
74ACT251	SOIC-16	8-input multiplexer				
74ACT251	DIP-16	8-input multiplexer				
74ACT257	SOIC-16	Quad 2-input multiplexer with 3-st. outputs	266968CH	CD74ACT257M	.67	.61 .55
74ACT257	DIP-16	Quad 2-input multiplexer with 3-st. outputs	263097CH	CD74ACT257E	.40	.31 .27
74ACT273	SOIC-20	Octal D-type flip-flop	266984CH	CD74ACT273M	.50	.41 .31
74ACT273	DIP-20	Octal D-type flip-flop	263100CH	CD74ACT273E	.41	.36 .28
74ACT373	SOIC-20	Octal transparent latch w/ 3-state outputs	267004CH	SN74ACT373DW	.44	.36 .28
74ACT373	DIP-20	Octal transparent latch w/ 3-state outputs	263177CH	SN74ACT373N	.45	.36 .28
74ACT374	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	267021CH	SN74ACT374DW	.45	.36 .28
74ACT374	DIP-20	Octal D-type flip-flop w/ 3-state outputs	263193CH	SN74ACT374N	.44	.36 .28
74ACT521	SOIC-20	8-bit identity comparator				
74ACT521	DIP-20	8-bit identity comparator				
74ACT533	SOIC-20	Octal transparent latch w/ 3-state outputs	267080CH	SN74ACT533DW	.49	.37 .28
74ACT533	DIP-20	Octal transparent latch w/ 3-state outputs	263425CH	SN74ACT533N	.57	.52 .39
74ACT541	SOIC-20	Octal buffer/line driver with 3-state outputs	267178CH	CD74ACT541M	.43	.38 .30
74ACT541	DIP-20	Octal buffer/line driver with 3-state outputs	263441CH	CD74ACT541E	.45	.36 .28
74ACT573	SOIC-20	Octal latch with 3-state outputs	267282CH	SN74ACT573DW	.45	.36 .27
74ACT573	DIP-20	Octal latch with 3-state outputs	263468CH	SN74ACT573	.63	.59 .55
74ACT574	SOIC-20	Octal D-type flip-flop	267346CH	SN74ACT574DW	.45	.36 .28
74ACT574	DIP-20	Octal D-type flip-flop	263476CH	SN74ACT574N	.63	.55 .45
74ACT715	SOIC-20	Programmable video sync. generator				
74ACT715	DIP-20	Programmable video sync. generator				

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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Part No.	Cross Ref.	1	10	100
266474CH	74ACT138M	.32	.29	.22
212038CH	74ACT138N	.23	.20	.15
266491CH	74ACT139M	.37	.30	.23
239011CH	74ACT139N	.38	.32	.24
266511CH	74ACT151M	.39	.30	.23
239020CH	74ACT151N	.44	.329	.249
266520CH	74ACT157M	.30	.27	.23
239038CH	74ACT157N	.44	.329	.249
266546CH	74ACT161M	.63	.57	.48
239071CH	74ACT161N	.39	.33	.25
266562CH	74ACT163M	.39	.30	.23
239062CH	74ACT163N	.49	.42	.31
266600CH	74ACT174M	.38	.35	.33
239054CH	74ACT174N	.48	.41	.31
266677CH	74ACT175M	.55	.49	.40
239089CH	74ACT175N	.55	.47	.328
266731CH	74ACT240M	.46	.37	.29
212046CH	74ACT240N	.30	.26	.218
266765CH	74ACT241M	.41	.33	.25
239097CH	74ACT241N	.41	.33	.25
266896CH	74ACT244M	.32	.27	.24
212054CH	74ACT244N	.45	.34	.26
266917CH	74ACT245M	.40	.33	.25
212062CH	74ACT245N	.38	.33	.25
266933CH	74ACT251M	.46	.35	.26
239100CH	74ACT251N	.46	.35	.27
266941CH	74ACT257M	.38	.35	.33
239126CH	74ACT257N	.36	.31	.23
266976CH	74ACT273M	.46	.37	.29
212071CH	74ACT273N	.37	.31	.23
266992CH	74ACT373M	.40	.33	.25
212089CH	74ACT373N	.41	.33	.25
267012CH	74ACT374M	.41	.33	.25
212097CH	74ACT374N	.40	.33	.25
267055CH	74ACT521M	.44	.36	.30
235230CH	74ACT521N	.79	.60	.45
267071CH	74ACT533M	.44	.34	.26
235248CH	74ACT533N	.52	.47	.43
267151CH	74ACT541M	.39	.35	.29
235264CH	74ACT541N	.41	.33	.25
267274CH	74ACT573M	.41	.33	.25
235272CH	74ACT573N	.32	.27	.20
267338CH	74ACT574M	.41	.33	.25
235281CH	74ACT574N	.57	.48	.36
267371CH	74ACT715M	9.45	8.49	7.65
235299CH	74ACT715N	8.69	8.24	7.49

Semiconductors

## TTL Logic Data Book

## Texas Instruments

Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)

- Size: 6.0" x 8.5"
- Weight: 2.6 lbs.



Part No.	Description	1	10
88225CH	TTL Logic Data Book	\$34.95	\$31.49

Color Code Legend			
New	Sale	Lower\$	QtySave

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Have you ever tried to search for discrete logic in catalogs? Sometimes they're over-priced, and more often, it's difficult to find the low-cost manufacturer. TI on one page, National Semi on another... what's an engineer to do?

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**Practical Practices**  
Money Saving Tips for the Engineer



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## 74AHC(T)XXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba	Samsung
AHC(T)	DIP	SN74AHC(T)XXXN	74AHC(T)XXXN	MM74VHC(T)XXXN	—	—	—	—	KS74AHC(T)XXXN
	SOIC	SN74AHC(T)XXXD/DW	74AHC(T)XXXM	MM74VHC(T)XXXM/MM	MC74VHC(T)XXXD	M74VHC(T)XXXM	74AHC(T)XXXD	TC74VHC(T)XXXFN/FW	—

### 74AHC Series – AHC family offers CMOS inputs with CMOS outputs

AHC(T) = VHC(T)

DIP 

SOIC 

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**Quantity SAVE**

Texas Instruments – Save 6-10%			
Base No.	Package	Description	Part No. T.I. Product No. 1 10 100
74AHC00	SOIC-14	Quad 2-input positive NAND gate	289641CH SN74AHC00D ..... \$ .32 \$ .27 \$ .19
74AHC00	DIP-14	Quad 2-input positive NAND gate	287726CH SN74AHC00N ..... .36 .30 .21
74AHC02	SOIC-14	Quad 2-input positive NOR gate	289668CH SN74AHC02D ..... .32 .31 .22
74AHC02	DIP-14	Quad 2-input positive NOR gate	287742CH SN74AHC02N ..... .36 .30 .21
74AHC04	SOIC-14	Hex inverter	289721CH SN74AHC04D ..... .32 .31 .22
74AHC04	DIP-14	Hex inverter	287751CH SN74AHC04N ..... .36 .30 .21
74AHC08	SOIC-14	Quad 2-input positive AND gate	289764CH SN74AHC08D ..... .40 .32 .22
74AHC08	DIP-14	Quad 2-input positive AND gate	287777CH SN74AHC08N ..... .36 .30 .21
74AHC14	SOIC-14	Hex inverter with Schmitt trigger input	289799CH SN74AHC14D ..... .29 .25 .18
74AHC14	DIP-14	Hex inverter with Schmitt trigger input	288171CH SN74AHC14N ..... .35 .291 .202
74AHC32	SOIC-14	Quad 2-input positive OR gate	289932CH SN74AHC32D ..... .39 .319 .221
74AHC32	DIP-14	Quad 2-input positive OR gate	288198CH SN74AHC32N ..... .41 .33 .23
74AHC74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	289959CH SN74AHC74D ..... .40 .32 .22
74AHC74	DIP-14	Dual D-type pos. edge-triggered flip-flop	288201CH SN74AHC74N ..... .30 .29 .21
74AHC86	SOIC-14	Quad 2-input exclusive OR gate	289983CH SN74AHC86D ..... .22 .173 .156
74AHC86	DIP-14	Quad 2-input exclusive OR gate	288219CH SN74AHC86N ..... .44 .355 .248
74AHC138	SOIC-16	3-line to 8-line decoders/demultiplexers	290036CH SN74AHC138D ..... .42 .373 .304
74AHC138	DIP-16	3-line to 8-line decoders/demultiplexers	288286CH SN74AHC138N ..... .46 .37 .26
74AHC139	SOIC-16	Dual 2-line to 4-line decoders/demultiplexers	290061CH SN74AHC139D ..... .48 .38 .30
74AHC139	DIP-16	Dual 2-line to 4-line decoders/demultiplexers	288294CH SN74AHC139N ..... .49 .41 .32
74AHC157	DIP-16	2 to 1 data selector/multiplexer	288382CH SN74AHC157N ..... .60 .45 .34
74AHC240	SOIC-20	Octal buffer/driver w/ 3-st. outputs	290108CH SN74AHC240DW ..... .50 .38 .29
74AHC240	DIP-20	Octal buffer/driver w/ 3-st. outputs	288315CH SN74AHC240N ..... .29 .256 .248
74AHC244	SOIC-20	Octal buffer/driver w/ 3-st. outputs	290175CH SN74AHC244DW ..... .41 .33 .25
74AHC244	DIP-20	Octal buffer/driver w/ 3-st. outputs	288323CH SN74AHC244N ..... .36 .291 .221
74AHC245	SOIC-20	Octal bus transceiver w/ 3-state outputs	290191CH SN74AHC245DW ..... .43 .33 .25
74AHC245	DIP-20	Octal bus transceiver w/ 3-state outputs	288331CH SN74AHC245N ..... .42 .292 .216
74AHC373	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	290212CH SN74AHC373DW ..... .43 .33 .25
74AHC373	DIP-20	Octal transparent D-type latch w/ 3-st. outputs	288340CH SN74AHC373N ..... .30 .24 .22
74AHC374	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	290247CH SN74AHC374DW ..... .29 .237 .212
74AHC374	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	288358CH SN74AHC374N ..... .30 .24 .22
74AHC541	SOIC-20	Octal buffer/driver w/ 3-state outputs	290271CH SN74AHC541DW ..... .50 .38 .29
74AHC541	DIP-20	Octal buffer/driver w/ 3-state outputs	288366CH SN74AHC541N ..... .39 .349 .265
74AHC574	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	290298CH SN74AHC574DW ..... .29 .237 .213
74AHC574	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	288374CH SN74AHC574N ..... .37 .30 .23

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Part No.	Cross Ref.	1	10	100
289650CH	74AHC00M	\$.30	\$.253	\$.176
214092CH	74AHC00N	.32	.27	.19
289676CH	74AHC02M	.30	.291	.202
214105CH	74AHC02N	.32	.27	.19
289748CH	74AHC04M	.30	.291	.202
214113CH	74AHC04N	.32	.27	.19
289772CH	74AHC08M	.36	.291	.202
214121CH	74AHC08N	.32	.27	.19
289801CH	74AHC14M	.26	.224	.159
214130CH	74AHC14N	.32	.29	.19
289941CH	74AHC32M	.35	.291	.202
214148CH	74AHC32N	.36	.29	.20
289967CH	74AHC74M	.36	.291	.202
214156CH	74AHC74N	.26	.22	.165
289991CH	74AHC86M	.20	.158	.143
214164CH	74AHC86N	.32	.27	.19
290044CH	74AHC138M	.39	.34	.277
243213CH	74AHC138N	.45	.38	.28
290079CH	74AHC139M	.44	.332	.277
243221CH	74AHC139N	.45	.38	.28
243230CH	74AHC157N	.53	.40	.31
290116CH	74AHC240M	.46	.349	.269
214172CH	74AHC240N	.31	.28	.26
290183CH	74AHC244M	.37	.299	.227
214181CH	74AHC244N	.33	.27	.20
290204CH	74AHC245M	.39	.299	.227
214199CH	74AHC245N	.39	.299	.227
290239CH	74AHC373M	.39	.299	.227
214201CH	74AHC373N	.26	.22	.17
290255CH	74AHC374M	.26	.216	.193
214210CH	74AHC374N	.26	.24	.227
290280CH	74AHC541M	.46	.349	.265
214228CH	74AHC541N	.33	.27	.20
290319CH	74AHC574M	.26	.216	.203
214236CH	74AHC574N	.39	.299	.227

### 74AHCT Series – AHCT family offers TTL inputs with CMOS outputs

AHC(T) = VHC(T)

DIP 

SOIC 

**Quantity SAVE**

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Base No.	Package	Description	Part No. T.I. Product No. 1 10 100
74AHCT00	SOIC-14	Quad 2-input positive NAND gate	289051CH SN74AHCT00D ..... \$ .24 \$ .20 \$ .16
74AHCT00	DIP-14	Quad 2-input positive NAND gate	288454CH SN74AHCT00N ..... .23 .15 .13
74AHCT02	DIP-14	Quad 2-input positive NOR gate	288489CH SN74AHCT02N ..... .36 .30 .21
74AHCT04	SOIC-14	Hex inverter	289086CH SN74AHCT04D ..... .21 .16 .14
74AHCT04	DIP-14	Hex inverter	288497CH SN74AHCT04N ..... .34 .30 .21
74AHCT08	SOIC-14	Quad 2-input positive AND gate	289140CH SN74AHCT08D ..... .21 .16 .15
74AHCT08	DIP-14	Quad 2-input positive AND gate	288569CH SN74AHCT08N ..... .32 .291 .202
74AHCT14	SOIC-14	Hex inverter with Schmitt trigger input	289166CH SN74AHCT14D ..... * .146 .129
74AHCT14	DIP-14	Hex inverter with Schmitt trigger input	288577CH SN74AHCT14N ..... .35 .291 .202
74AHCT74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	289262CH SN74AHCT74D ..... .29 .25 .18
74AHCT74	DIP-14	Dual D-type pos. edge-triggered flip-flop	288649CH SN74AHCT74N ..... .35 .291 .202
74AHCT86	SOIC-14	Quad 2-input exclusive OR gate	289289CH SN74AHCT86D ..... .23 .191 .166
74AHCT86	DIP-14	Quad 2-input exclusive OR gate	288657CH SN74AHCT86N ..... .23 .19 .17

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\* Prepackaged: order in increments of 10 or 100

Part No.	Cross Ref.	1	10	100
289060CH	74AHCT00M	\$.22	\$.183	\$.143
43844CH	74AHCT00N	.21	.15	.10
43852CH	74AHCT02N	.32	.27	.20
289094CH	74AHCT04M	*	.149	.126
43861CH	74AHCT04N	.30	.266	.185
289158CH	74AHCT08M	*	.149	.134
63431CH	74AHCT08N	.30	.26	.19
289174CH	74AHCT14M	*	.133	.118
63458CH	74AHCT14N	.32	.27	.19
289254CH	74AHCT74M	.26	.224	.159
43924CH	74AHCT74N	.32	.27	.20
289297CH	74AHCT86M	.21	.174	.151
43932CH	74AHCT86N	.21	.18	.13

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola. ♦ Refurbished = Backed by Jameco



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DIP



SOIC

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**Quantity SAVE**

		– Save 6-10%				
Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74AHCT138	SOIC-16	3-line to 8-line decoders/demultiplexers	289318CH	SN74AHCT138D .....	\$ .50	\$ .40 \$ .30
74AHCT138	DIP-16	3-line to 8-line decoders/demultiplexers	288673CH	SN74AHCT138N .....	.40	.33 .25
74AHCT139	SOIC-16	Dual 2-line to 4-line decoders/demultiplexers	289342CH	SN74AHCT139D .....	.48	.38 .30
74AHCT139	DIP-16	Dual 2-line to 4-line decoders/demultiplexers	288711CH	SN74AHCT139N .....	.29	.28 .20
74AHCT240	SOIC-20	Octal buffer/driver w/ 3-st. outputs	289385CH	SN74AHCT240DW .....	.45	.38 .29
74AHCT240	DIP-20	Octal buffer/driver w/ 3-st. outputs	288737CH	SN74AHCT240N .....	.29	.259 .248
74AHCT244	SOIC-20	Octal buffer/driver w/ 3-st. outputs	289449CH	SN74AHCT244DW .....	.43	.33 .25
74AHCT244	DIP-20	Octal buffer/driver w/ 3-st. outputs	288868CH	SN74AHCT244N .....	.29	.24 .21
74AHCT245	SOIC-20	Octal bus transceiver w/ 3-state outputs	289490CH	SN74AHCT245DW .....	.43	.33 .25
74AHCT245	DIP-20	Octal bus transceiver w/ 3-state outputs	288884CH	SN74AHCT245N .....	.43	.328 .248
74AHCT373	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	289502CH	SN74AHCT373DW .....	.43	.33 .25
74AHCT373	DIP-20	Octal transparent D-type latch w/ 3-st. outputs	288892CH	SN74AHCT373N .....	.29	.237 .214
74AHCT374	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	289561CH	SN74AHCT374DW .....	.29	.237 .212
74AHCT374	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	288913CH	SN74AHCT374N .....	.29	.237 .212
74AHCT574	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	289617CH	SN74AHCT574DW .....	.43	.33 .25
74AHCT574	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	288964CH	SN74AHCT574N .....	.43	.33 .25

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Part No.	Cross Ref.	1	10	100
289326CH	74AHCT138M .....	\$ .45	\$ .365	\$ .277
243248CH	74AHCT138N .....	.36	.31	(.23)
289351CH	74AHCT139M .....	.44	.35	.277
243256CH	74AHCT139N .....	.26	.252	(.185)
289414CH	74AHCT240M .....	.41	.349	.269
214244CH	74AHCT240N .....	.26	.22	(.165)
289457CH	74AHCT244M .....	.39	.299	.227
63466CH	74AHCT244N .....	.26	.22	(.17)
289481CH	74AHCT245M .....	.39	.299	.227
43887CH	74AHCT245N .....	.39	.299	.227
289511CH	74AHCT373M .....	.39	.299	.227
43908CH	74AHCT373N .....	.26	.22	.193
289570CH	74AHCT374M .....	.26	.216	.193
43916CH	74AHCT374N .....	.26	.22	(.165)
289633CH	74AHCT574M .....	.39	.30	.227
214252CH	74AHCT574N .....	.39	.299	.227

**74ABTXXX CMOS Logic Competitive Cross Reference Guide**

Family	Package	TI	Jameco	Fairchild	Philips
ABT	DIP	SN74ABTXXXN	74ABTXXXN	74ABTXXXPC	74ABTXXXN
	SOIC	SN74ABTXXXD/DW	74ABTXXXD	74ABTXXXSC	74ABTXXXD

**74ABT Series** – BiCMOS Technology for High Performance Bus Systems

DIP



SOIC

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		– Save 6-10%				
Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74ABT125	SOIC-14	Quad buffer w/ 3-state outputs	290811CH	SN74ABT125D .....	\$ .51	\$ .41 \$ .31
74ABT125	DIP-14	Quad bus buffer gate w/ 3-state outputs	290482CH	SN74ABT125N .....	.41	.34 .29
74ABT240	SOIC-20	Octal buffer/driver w/ 3-state outputs	290909CH	SN74ABT240ADW .....	.82	.62 .48
74ABT240	DIP-20	Octal buffer/driver w/ 3-state outputs	290503CH	SN74ABT240AN .....	.72	.62 .47
74ABT241	SOIC-20	Octal buffer/driver w/ 3-state outputs	290941CH	SN74ABT241ADW .....	.82	.62 .48
74ABT244	SOIC-20	Octal buffer/driver w/ 3-state outputs	291160CH	SN74ABT244ADW .....	.67	.51 .39
74ABT244	DIP-20	Octal buffer/driver w/ 3-state outputs	290511CH	SN74ABT244AN .....	.67	.51 .39
74ABT245	SOIC-20	Octal bus transceiver w/ 3-state outputs	291186CH	SN74ABT245BDW .....	.67	.51 .39
74ABT245	DIP-20	Octal bus transceiver w/ 3-state outputs	290520CH	SN74ABT245BN .....	.67	.51 .39
74ABT373	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	291223CH	SN74ABT373DW .....	.65	.491 .373
74ABT373	DIP-20	Octal D-type flip-flop w/ 3-state outputs	290546CH	SN74ABT373N .....	.65	.491 .377
74ABT374	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	291266CH	SN74ABT374ADW .....	.67	.51 .39
74ABT374	DIP-20	Octal D-type flip-flop w/ 3-state outputs	290589CH	SN74ABT374AN .....	.65	.491 .373
74ABT377	SOIC-20	Octal edge-triggered D-type flip-flop w/ clock enable	291354CH	SN74ABT377ADW .....	.74	.56 .43
74ABT534	SOIC-20	Octal edge-triggered D-type flipflop w/ 3-st. outputs	291371CH	SN74ABT534ADW .....	.79	.66 .59
74ABT541	SOIC-20	Octal buffer/driver w/ 3-state outputs	291418CH	SN74ABT541BDW .....	.66	.47 .42
74ABT541	DIP-20	Octal buffer/driver w/ 3-state outputs	290685CH	SN74ABT541BN .....	.74	.56 .43
74ABT573	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	291442CH	SN74ABT573ADW .....	.65	.49 .38
74ABT573	DIP-20	Octal transparent D-type latch w/ 3-st. outputs	290693CH	SN74ABT573AN .....	.67	.51 .39
74ABT574	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	291557CH	SN74ABT574ADW .....	.67	.51 .39
74ABT574	DIP-20	Octal D-type flip-flop w/ 3-state outputs	290706CH	SN74ABT574AN .....	.32	.309 .304
74ABT646	SOIC-20	Octal bus transceiver w/ 3-state outputs	291602CH	SN74ABT646ADW .....	1.25	1.06 .86
74ABT646	DIP-24	Octal bus transceiver w/ 3-state outputs	290714CH	SN74ABT646ANT .....	1.29	1.09 .87
74ABT652	SOIC-24	Octal registered transceivers w/ 3-st. outputs	291741CH	SN74ABT652ADW .....	1.35	1.12 .89
74ABT2240	SOIC-20	Octal buffer/driver w/ 3-state outputs	291750CH	SN74ABT2240ADW .....	.82	.62 .47
74ABT2244	SOIC-20	Octal buffer/driver w/ 30 ohms series resistors, 3-st.	291776CH	SN74ABT2244ADW .....	.65	.491 .377
74ABT2244	DIP-20	Octal buffer/driver w/ 30 ohms series resistors, 3-st.	290722CH	SN74ABT2244AN .....	.65	.491 .377
74ABT5402	SOIC-28	12-bit line/memory driver w/ 3-state outputs	291397CH	SN74ABT5402ADW .....	3.09	2.69 2.53

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Part No.	Cross Ref.	1	10	100
290837CH	74ABT125D .....	\$ .45	\$ .365	\$ .277
290351CH	74ABT125N .....	.36	.291	.27
290917CH	74ABT240AD .....	.72	.55	.42
290360CH	74ABT240AN .....	.63	.55	.42
290950CH	74ABT241AD .....	.72	.548	.42
291178CH	74ABT244AD .....	.59	.45	.34
290378CH	74ABT244AN .....	.59	.448	.344
291194CH	74ABT245BD .....	.59	.448	.344
290386CH	74ABT245BN .....	.59	.448	.344
291240CH	74ABT373D .....	.59	.448	.344
290415CH	74ABT373N .....	.59	.448	.34
291274CH	74ABT374AD .....	.59	.448	.344
290423CH	74ABT374AN .....	.59	.448	.344
291362CH	74ABT377AD .....	.66	.50	.378
291389CH	74ABT534AD .....	.73	.65	.59
291426CH	74ABT541BD .....	.58	.398	.37
290440CH	74ABT541BN .....	.66	.498	.378
291469CH	74ABT573AD .....	.59	.448	.34
290431CH	74ABT573AN .....	.59	.448	.344
291565CH	74ABT574AD .....	.59	.45	.34
290458CH	74ABT574AN .....	.35	.309	.304
291637CH	74ABT646AD .....	1.15	.97	.78
290466CH	74ABT646AN .....	1.15	.97	.78
291733CH	74ABT652AD .....	1.15	.99	.80
291768CH	74ABT2240AD .....	.72	.55	.416
291784CH	74ABT2244AD .....	.59	.448	.34
290343CH	74ABT2244AN .....	.59	.448	.344
291400CH	74ABT5402AD .....	2.79	2.69	2.53

<sup>†</sup> Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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## 74HC(T)XXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba
HC(T)	DIP	SN74HC(T)XXXN	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	DIP	CD74HC(T)XXE	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	SOIC	SN74HC(T)XXXD/DW	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW
	SOIC	CD74HC(T)XXXM	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW

### 74HC Series – HC family offers CMOS inputs with CMOS outputs

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Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74HC00	SOIC-14	Quad 2-input NAND gate	251889CH	SN74HC00D	..... *	\$ .137 .12
74HC00	DIP-14	Quad 2-input NAND gate	250966CH	SN74HC00N	..... .24	.21 .151
74HC02	SOIC-14	Quad 2-input NOR gate	251926CH	SN74HC02D	..... .23	.173 .13
74HC02	DIP-14	Quad 2-input NOR gate	250974CH	SN74HC02N	..... .26	.173 .156
74HC04	SOIC-14	Hex inverter (buffered)	251934CH	SN74HC04D	..... *	.137 .12
74HC04	DIP-14	Hex inverter (buffered)	250982CH	SN74HC04N	..... .26	.228 .193
74HC08	SOIC-14	Quad 2-input AND gate	251942CH	SN74HC08D	..... *	.137 .12
74HC08	DIP-14	Quad 2-input AND gate	251002CH	SN74HC08N	..... .26	.20 .166
74HC10	SOIC-14	Triple 3-input NAND gate	251951CH	SN74HC10D	..... *	.137 .12
74HC10	DIP-14	Triple 3-input NAND gate	251011CH	SN74HC10N	..... .31	.228 .202
74HC11	DIP-14	Triple 3-input AND gate	251037CH	SN74HC11N	..... .20	.173 .156
74HC14	SOIC-14	Hex inverter Schmitt trigger	251969CH	SN74HC14D	..... *	.155 .138
74HC14	DIP-14	Hex inverter Schmitt trigger	251045CH	SN74HC14N	..... .24	.21 .18
74HC30	SOIC-14	8-input NAND gate	251985CH	CD74HC30M	..... .31	.28 .20
74HC30	DIP-14	8-input NAND gate	251070CH	CD74HC30E	..... .31	.28 .20
74HC32	SOIC-14	Quad 2-input OR gate	251993CH	SN74HC32D	..... *	.137 .12
74HC32	DIP-14	Quad 2-input OR gate	251088CH	SN74HC32N	..... .30	.25 .22
74HC74	SOIC-14	Dual D flip-flop	252030CH	SN74HC74D	..... .22	.18 .17
74HC74	DIP-14	Dual D flip-flop	251096CH	SN74HC74N	..... .38	.35 .31
74HC85	SOIC-16	4-bit magnitude comparator	252048CH	CD74HC85M	..... .59	.54 .49
74HC85	DIP-16	4-bit magnitude comparator	251109CH	CD74HC85E	..... .47	.45 .40
74HC86	SOIC-14	Quad Exclusive OR gate	252056CH	SN74HC86D	..... *	.118 .11
74HC86	DIP-14	Quad Exclusive-OR gate	251133CH	SN74HC86N	..... .27	.24 .22
74HC123	SOIC-16	Dual retriggerable monostable multivibrator	252064CH	CD74HC123M	..... .43	.328 .248
74HC123	DIP-16	Dual retriggerable monostable multivibrator	251184CH	CD74HC123E	..... .40	.33 .248
74HC125	SOIC-14	Quad bus buffer tri-state	252072CH	SN74HC125D	..... .23	.191 .166
74HC125	DIP-14	Quad bus buffer tri-state	251192CH	SN74HC125N	..... .31	.264 .23
74HC132	SOIC-14	Quad 2-input NAND Schmitt trigger	252081CH	SN74HC132D	..... .26	.218 .193
74HC132	DIP-14	Quad 2-input NAND Schmitt trigger	251205CH	SN74HC132N	..... .31	.264 .23
74HC138	SOIC-16	3-to-8 decoder/demultiplexer	252099CH	SN74HC138D	..... .26	.218 .193
74HC138	DIP-16	3-to-8 decoder/demultiplexer	251213CH	SN74HC138N	..... .33	.29 .20
74HC139	SOIC-16	2 to 4 decoder/demultiplexer	252101CH	SN74HC139D	..... .40	.36 .304
74HC139	DIP-16	2-to 4 decoder/demultiplexer	251221CH	SN74HC139N	..... .40	.328 .248
74HC154	SOIC-24	4/16 line decoder	252110CH	CD74HC154M	..... .43	.328 .248
74HC154	DIP-24	4/16 line decoder (.6"W)	251230CH	CD74HC154E	..... .69	.63 .57
74HC154	DIP-24	4/16 line decoder (.3"W)	251248CH	CD74HC154EN	..... .46	.41 .367
74HC157	SOIC-16	Quad 2-input multiplexer	252136CH	SN74HC157D	..... .23	.183 .17
74HC157	DIP-16	Quad 2-input multiplexer	252199CH	SN74HC157N	..... .28	.20 .175
74HC161	SOIC-16	Synchronous 4-bit counter	252144CH	SN74HC161D	..... .27	.182 .156
74HC161	DIP-16	Synchronous 4-bit counter	251301CH	SN74HC161N	..... .33	.237 .212
74HC163	DIP-16	Synchronous 4-bit counter	251310CH	SN74HC163N	..... .30	.25 .24
74HC164	SOIC-14	8-bit serial shift register	252152CH	SN74HC164D	..... .25	.21 .193
74HC164	DIP-14	8-bit serial shift register	251328CH	SN74HC164N	..... .41	.33 .25
74HC165	SOIC-16	Parallel load 8-bit serial shift register	252161CH	SN74HC165D	..... .36	.29 .22
74HC165	DIP-16	Parallel load 8-bit serial shift register	251336CH	SN74HC165N	..... .35	.30 .22
74HC174	SOIC-16	Hex D flip-flop with clear	252179CH	SN74HC174D	..... .25	.191 .166
74HC174	DIP-16	Hex D flip-flop with clear	251352CH	SN74HC174N	..... .41	.33 .25
74HC192	DIP-16	Decade up/down counter with clear	251395CH	CD74HC192E	..... 1.75	1.57 1.39
74HC193	SOIC-16	Binary up/down counter with clear	252187CH	SN74HC193D	..... .43	.328 .248
74HC193	DIP-16	Binary up/down counter with clear	251387CH	SN74HC193N	..... .30	.218 .166
74HC221	SOIC-16	Dual mono. multivibrator Schmitt trigger	252259CH	CD74HC221M	..... .47	.45 .41

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\* Prepackaged: order in increments of 10 or 100

Part No.	Cross Ref.	1	10	100
197106CH	74HC00M	..... *	\$ .125	\$.094
45161CH	74HC00N	..... .22	.19	.14
197114CH	74HC02M	..... .21	.16	.12
45188CH	74HC02N	..... *	.15	.113
197122CH	74HC04M	..... *	.125	.094
45209CH	74HC04N	..... .24	.208	.176
197131CH	74HC08M	..... *	.125	.109
45225CH	74HC08N	..... .23	.16	.126
243272CH	74HC10M	..... *	.125	.094
45233CH	74HC10N	..... .28	.208	.185
45268CH	74HC11N	..... *	.158	.118
197149CH	74HC14M	..... *	.141	.126
45364CH	74HC14N	..... .22	.19	.17
243281CH	74HC30M	..... .28	.24	.18
45786CH	74HC30N	..... .28	.24	.18
197157CH	74HC32M	..... *	.125	.094
45794CH	74HC32N	..... .28	.24	.18
197165CH	74HC74M	..... *	.141	.106
46130CH	74HC74N	..... .35	.32	.29
243299CH	74HC85M	..... .43	.37	.27
46172CH	74HC85N	..... .43	.37	.27
243301CH	74HC86M	..... *	.108	.081
46181CH	74HC86N	..... .25	.22	.20
243310CH	74HC123M	..... .39	.33	.25
45292CH	74HC123N	..... .37	.30	.227
243328CH	74HC125M	..... .21	.19	.16
45305CH	74HC125N	..... .28	.24	.18
243731CH	74HC132M	..... .24	.20	.15
45321CH	74HC132N	..... .28	.264	.23
197173CH	74HC138M	..... .24	.20	.15
45330CH	74HC138N	..... .30	.27	.18
243740CH	74HC139M	..... .36	.32	.277
45356CH	74HC139N	..... .36	.299	.227
243758CH	74HC154WM	..... .40	.30	.23
111739CH	74HC154WN	..... .64	.58	.53
45401CH	74HC154N	..... .43	.38	.34
243766CH	74HC157M	..... .21	.166	.125
45428CH	74HC157N	..... .27	.183	.16
243774CH	74HC161M	..... .25	.162	.122
45452CH	74HC161N	..... .30	.26	.19
45479CH	74HC163N	..... .28	.24	.18
197181CH	74HC164M	..... .23	.20	.15
45487CH	74HC164N	..... .38	.30	.23
197190CH	74HC165M	..... \$ .41	.30	.249 .218
45495CH	74HC165N	..... .32	.27	.20
243782CH	74HC174M	..... .23	.174	.151
45508CH	74HC174N	..... .38	.30	.23
45541CH	74HC192N	..... 1.59	1.45	1.29
243791CH	74HC193M	..... .39	.299	.227
45559CH	74HC193N	..... .27	.24	.19
243803CH	74HC221AM	..... .43	.37	.27

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SOIC



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Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74HC221	DIP-16	Dual mono. multivibrator Schmitt trigger	251408CH	CD74HC221E	\$.58	\$.437 \$.331
74HC240	SOIC-20	Octal inverting line driver tri-state	252267CH	SN74HC240DW	.28	.237 .202
74HC240	DIP-20	Octal inverting line driver tri-state	251416CH	SN74HC240N	.37	.319 .276
74HC244	SOIC-20	Octal driver tri-state	252275CH	SN74HC244DW	.28	.237 .202
74HC244	DIP-20	Octal driver tri-state	251424CH	SN74HC244N	.49	.42 .31
74HC245	SOIC-20	Octal transceiver tri-state	252291CH	SN74HC245DW	.43	.328 .248
74HC245	DIP-20	Octal transceiver tri-state	251432CH	SN74HC245N	.49	.41 .31
74HC273	SOIC-20	Octal D-type flip-flops with clear	252304CH	SN74HC273DW	.28	.237 .202
74HC273	DIP-20	Octal D-type flip-flop with clear	251459CH	SN74HC273N	.32	.246 .23
74HC373	SOIC-20	Octal D-type flip-flop tri-state	252312CH	SN74HC373DW	.28	.237 .202
74HC373	DIP-20	Octal D-type flip-flop tri-state	251475CH	SN74HC373N	.49	.42 .38
74HC374	SOIC-20	Octal D-type flip-flop edge-trig tri-state	252321CH	SN74HC374DW	.28	.209 .184
74HC374	DIP-20	Octal D-type flip-flop edge-trig tri-state	251483CH	SN74HC374N	.53	.42 .31
74HC393	SOIC-14	Dual 4-bit binary counter	252339CH	SN74HC393D	.28	.237 .202
74HC393	DIP-14	Dual 4-bit binary counter	251504CH	SN74HC393N	.36	.32 .243
74HC540	SOIC-20	Octal invert. buffer/line driver tri-state	252347CH	SN74HC540DW	.28	.246 .221
74HC540	DIP-20	Octal invert. buffer/line driver tri-state	251512CH	SN74HC540N	.34	.291 .258
74HC541	SOIC-20	Octal buffer/line driver tri-state	252355CH	SN74HC541DW	.29	.264 .221
74HC541	DIP-20	Octal buffer/line driver tri-state	251521CH	SN74HC541N	.38	.335 .319
74HC573	SOIC-20	Octal D-type flip-flop tri-state	252363CH	SN74HC573ADW	.29	.246 .221
74HC573	DIP-20	Octal D-type flip-flop tri-state	251547CH	SN74HC573AN	.41	.346 .304
74HC574	SOIC-20	Octal D-type flip-flop tri-state	252371CH	SN74HC574DW	.29	.191 .175
74HC574	DIP-20	Octal D-type flip-flop tri-state	251555CH	SN74HC574N	.41	.346 .304
74HC590	DIP-16	8-bit binary counter w/ output reg. tri-state	251635CH	SN74HC590AN	.41	.346 .304
74HC595	SOIC-16	8-bit serial-to-parallel shift reg. tri-state	252523CH	SN74HC595D	.28	.237 .202
74HC595	DIP-16	8-bit serial-to-parallel shift reg. tri-state	251643CH	SN74HC595N	.67	.48 .42
74HC688	SOIC-20	8-bit mag. comparator	252531CH	SN74HC688DW	.42	.355 .313
74HC688	DIP-20	8-bit mag. comparator	251651CH	SN74HC688N	.49	.41 .368
74HC4017	DIP-16	Decade ctr./div. with 10 decoded outputs	251660CH	CD74HC4017E	.54	.49 .469
74HC4020	SOIC-16	14-stage binary counter	252540CH	SN74HC4020D	.45	.20 .18
74HC4020	DIP-16	14-stage binary counter	251678CH	CD74HC4020E	.29	.20 .184
74HC4040	SOIC-16	12-stage binary counter	252558CH	SN74HC4040D	.27	.218 .202
74HC4040	DIP-16	12-stage binary counter	251686CH	SN74HC4040N	.33	.26 .22
74HC4046	SOIC-16	Phase lock loop	252460CH	CD74HC4046AM	.39	.328 .294
74HC4046	DIP-16	Phase lock loop	251694CH	CD74HC4046AE	.49	.40 .30
74HC4049	SOIC-16	HEX inverting buffers	252478CH	CD74HC4049M	.36	.33 .30
74HC4049	DIP-16	Hi speed HEX inverting buffers	272049CH	CD74HC4049E	.40	.38 .29
74HC4050	SOIC-16	HEX non-inverting buffers	252486CH	CD74HC4050M	.42	.355 .276
74HC4050	DIP-16	Hi speed HEX non-inverting buffers	272065CH	CD74HC4050E	.45	.364 .276
74HC4051	SOIC-16	Single 8-channel multiplexer/demultiplexer	252380CH	CD74HC4051M	.39	.36 .285
74HC4051	DIP-16	Single 8-channel multiplexer/demultiplexer	251707CH	CD74HC4051E	.41	.319 .294
74HC4052	SOIC-16	Hi speed analog multiplexer/demultiplexer	252494CH	CD74HC4052M	.42	.328 .248
74HC4052	DIP-16	Hi speed analog multiplexer/demultiplexer	272081CH	CD74HC4052E	.48	.36 .273
74HC4053	SOIC-16	Hi speed analog multiplexer/demultiplexer	252515CH	CD74HC4053M	.38	.35 .28
74HC4053	DIP-16	Hi speed analog multiplexer/demultiplexer	272111CH	CD74HC4053E	.35	.291 .248
74HC4060	SOIC-16	14-stage binary counter	252419CH	SN74HC4060D	.43	.33 .25
74HC4060	DIP-16	14-stage binary counter	251803CH	SN74HC4060N	.43	.33 .25
74HC4066	SOIC-14	Quad analog switch	252435CH	SN74HC4066D	.42	.355 .304
74HC4066	DIP-14	Quad analog switch	251811CH	SN74HC4066N	.45	.364 .276
74HC4316	SOIC-16	Hi speed quad analog switches w/ level translation	252566CH	CD74HC4316M	.42	.355 .29
74HC4316	DIP-16	Hi speed quad analog switches w/ level translation	272145CH	CD74HC4316E	.49	.41 .368
74HC4514	DIP-24	4/16-line decoder with latch (.3"W)	318908CH	CD74HC4514EN	.88	.83 .80
74HC4514	DIP-24	4/16-line decoder with latch (.6"W)	251820CH	CD74HC4514E	1.69	1.54 1.40
74HC4538	SOIC-16	Dual retrig. mono. multivibrator	252443CH	CD74HC4538M	.30	.25 .23
74HC4538	DIP-16	Dual retrig. mono. multivibrator	251838CH	CD74HC4538E	.46	.421 .302

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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Part No.	Cross Ref.	1	10	100
45604CH	74HC221N	\$.53	\$.398	\$.302
243811CH	74HC240WM	.25	.21	.16
45612CH	74HC240N	.34	.29	.22
197202CH	74HC244M	.25	.21	.16
45655CH	74HC244N	.45	.39	.35
197211CH	74HC245M	.39	.33	.25
45671CH	74HC245N	.45	.38	.29
243820CH	74HC273WM	.25	.21	.16
45743CH	74HC273N	.29	.25	.18
197229CH	74HC373M	.25	.21	.16
45831CH	74HC373N	.45	.39	.35
197237CH	74HC374M	.25	.191	.17
45858CH	74HC374N	.49	.39	.29
243838CH	74HC393M	.25	.21	.16
45874CH	74HC393N	.33	.28	.21
243846CH	74HC540WM	.26	.22	.165
109760CH	74HC540N	.37	.31	.24
243854CH	74HC541WM	.26	.224	.202
46050CH	74HC541N	.34	.305	.249
197245CH	74HC573M	.26	.22	.17
46076CH	74HC573N	.37	.31	.233
197253CH	74HC574M	.26	.174	.14
46084CH	74HC574N	.37	.31	.233
88090CH	74HC590N	.38	.32	.24
245075CH	74HC595M	.25	.21	.16
46105CH	74HC595N	.62	.44	.39
245083CH	74HC688WM	.38	.324	.286
46113CH	74HC688N	.44	.37	.28
45891CH	74HC4017N	.50	.46	.428
245091CH	74HC4020M	.41	.166	.125
45903CH	74HC4020N	.26	.183	.168
245104CH	74HC4040M	.25	.199	.185
45920CH	74HC4040N	.30	.24	.21
243900CH	74HC4046M	.35	.299	.252
45938CH	74HC4046N	.44	.37	.28
243918CH	74HC4049M	.31	.266	.235
272057CH	74HC4049N	.36	.34	.27
243926CH	74HC4050M	.38	.324	.252
272073CH	74HC4050N	.41	.332	.252
243862CH	74HC4051M	.35	.32	.26
88102CH	74HC4051N	.37	.33	.29
245059CH	74HC4052M	.39	.30	.23
272090CH	74HC4052N	.44	.329	.249
245067CH	74HC4053M	.35	.32	.26
272129CH	74HC4053N	.32	.266	.227
243871CH	74HC4060M	.40	.30	.23
45962CH	74HC4060N	.40	.30	.23
243889CH	74HC4066M	.39	.324	.286
45971CH	74HC4066N	.41	.332	.252
245112CH	74HC4316M	.39	.324	.265
272153CH	74HC4316N	.44	.374	.336
46009CH	74HC4514N (.3"W)	.81	.79	.68
243897CH	74HC4538M	.27	.23	.21
46017CH	74HC4538N	.43	.39	.28

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## 74HC(T)XXX CMOS Logic Competitive Cross Reference Guide


Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba
HC(T)	DIP	SN74HC(T)XXXN	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	DIP	CD74HC(T)XXE	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	SOIC	SN74HC(T)XXXD/DW	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW
	SOIC	CD74HC(T)XXXM	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW

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**Quantity SAVE**

			 – Save 6-10%			
Base No.	Package	Description	Part No.	T.I. Product No.	1	10 100
74HCT00	SOIC-14	Quad 2-input NAND gate	246393CH	SN74HCT00D	* .16	\$.15
74HCT00	DIP-14	Quad 2-input NAND gate	246406CH	SN74HCT00N	.26	.23 .20
74HCT02	SOIC-14	Quad 2-input positive NOR gate	268373CH	SN74HCT02D	.31	.28 .223
74HCT02	DIP-14	Quad 2-input NOR gate	246414CH	SN74HCT02N	.40	.319 .221
74HCT04	SOIC-14	Hex inverter	246369CH	SN74HCT04D	.20	.155 .138
74HCT04	DIP-14	Hex inverter	246422CH	SN74HCT04N	.25	.22 .20
74HCT08	SOIC-14	Quad 2-input AND gate	246078CH	SN74HCT08D	* .16	.14
74HCT08	DIP-14	Quad 2-input AND gate	246431CH	SN74HCT08N	.20	.155 .138
74HCT14	SOIC-14	Hex inverter Schmitt trigger	246377CH	SN74HCT14D	.21	.173 .156
74HCT14	DIP-14	Hex inverter Schmitt trigger	246449CH	SN74HCT14N	.22	.173 .156
74HCT32	SOIC-14	Quad 2-input OR gate	246318CH	SN74HCT32D	* .146	.14
74HCT32	DIP-14	Quad 2-input OR gate	246457CH	SN74HCT32N	.20	.164 .156
74HCT74	SOIC-14	Dual D flip-flop	246262CH	SN74HCT74D	* .173	.156
74HCT74	DIP-14	Dual D flip-flop	246465CH	SN74HCT74N	.27	.228 .202
74HCT86	SOIC-14	Quad 2-input exclusive OR gate	268411CH	CD74HCT86M	.36	.32 .26
74HCT86	DIP-14	Quad 2-input exclusive OR gate	246473CH	CD74HCT86E	.24	.19 .13
74HCT123	SOIC-16	Dual retrigg. monostable multivibrator w/ reset	271951CH	CD74HCT123M	.32	.27 .22
74HCT123	DIP-16	Dual retrigg. monostable multivibrator w/ reset	246481CH	CD74HCT123E	.30	.246 .239
74HCT125	SOIC-14	Quad 3-state bus buffer	271986CH	SN74HCT125D	.36	.33 .25
74HCT125	DIP-14	Quad 3-state bus buffer	246490CH	SN74HCT125N	.29	.237 .212
74HCT138	SOIC-16	3 to 8 decoder/demultiplexer	246385CH	SN74HCT138D	.29	.25 .21
74HCT138	DIP-16	3 to 8 decoder/demultiplexer	246502CH	SN74HCT138N	.36	.309 .248
74HCT139	SOIC-16	2 to 4 decoder/demultiplexer	246289CH	SN74HCT139D	.27	.228 .212
74HCT139	DIP-16	2 to 4 decoder/demultiplexer	246511CH	SN74HCT139N	.35	.29 .22
74HCT154	DIP-24	4 to 16 decoder/demultiplexer	246521CH	CD74HCT154E	1.15	.90 .84
74HCT157	SOIC-16	Quad 2 to 1 data selectors/multiplexers	246300CH	SN74HCT157D	.45	.39 .294
74HCT157	DIP-16	Quad 2 to 1 data selectors/multiplexers	272145CH	SN74HCT157N	.49	.41 .368
74HCT164	SOIC-14	8-bit serial in/parallel out shift register	253016CH	CD74HCT164M	.34	.291 .267
74HCT164	DIP-14	8-bit serial in/parallel out shift register	250819CH	CD74HCT164E	.39	.33 .294
74HCT240	SOIC-20	Octal inverting line driver w/ 3-st. outputs	246351CH	SN74HCT240DW	.34	.31 .285
74HCT240	DIP-20	Octal inverting line driver w/ 3-st. outputs	250827CH	SN74HCT240N	.35	.32 .29
74HCT244	SOIC-20	Octal driver tri-state	246342CH	SN74HCT244DW	.43	.33 .25
74HCT244	DIP-20	Octal driver tri-state	250835CH	SN74HCT244N	.40	.33 .25
74HCT245	SOIC-20	Octal transceiver w/ 3-state outputs	246334CH	SN74HCT245DW	.34	.282 .248
74HCT245	DIP-20	Octal transceiver w/ 3-state outputs	250843CH	SN74HCT245N	.42	.33 .25
74HCT273	SOIC-20	Octal D-type flip-flop with clear	246326CH	SN74HCT273DW	.41	.31 .233
74HCT273	DIP-20	Octal D-type flip-flop with clear	250851CH	SN74HCT273N	.33	.30 .276
74HCT373	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	246140CH	SN74HCT373DW	.34	.282 .248
74HCT373	DIP-20	Octal D-type flip-flop w/ 3-state outputs	250878CH	SN74HCT373N	.43	.328 .248
74HCT374	SOIC-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	246166CH	SN74HCT374DW	.34	.31 .25
74HCT374	DIP-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	250894CH	SN74HCT374N	.26	.218 .21
74HCT393	DIP-14	Dual 4-stage binary counter	250907CH	CD74HCT393E	.47	.355 .27
74HCT540	SOIC-20	Octal 3-state buffer	246182CH	SN74HCT540DW	.47	.38 .294
74HCT540	DIP-20	Octal 3-state buffer	250915CH	SN74HCT540N	.50	.38 .294
74HCT541	SOIC-20	Octal buffer/line driver w/ 3-state outputs	246203CH	SN74HCT541DW	.32	.282 .248
74HCT541	DIP-20	Octal buffer/line driver w/ 3-state outputs	250923CH	SN74HCT541N	.45	.382 .294
74HCT573	SOIC-20	Octal D-type latched flip-flop w/ 3-st. outputs	246211CH	SN74HCT573DW	.43	.33 .25
74HCT573	DIP-20	Octal D-type latched flip-flop w/ 3-st. outputs	250931CH	SN74HCT573N	.38	.33 .25
74HCT574	SOIC-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	246246CH	SN74HCT574DW	.38	.33 .25
74HCT574	DIP-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	250940CH	SN74HCT574N	.43	.33 .25
74HCT688	DIP-20	8-bit magnitude comparator	250958CH	CD74HCT688E	.64	.52 .41

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.



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Part No.	Cross Ref.	1	10	100
246027CH	74HCT00M	* .15	\$.14	
44871CH	74HCT00N	.24	.22	.19
268390CH	74HCT02M	.28	.24	.203
44880CH	74HCT02N	.36	.291	.202
246035CH	74HCT04M	* .141	.126	
44898CH	74HCT04N	.23	.20	.15
246043CH	74HCT08M	* .15	.126	
44901CH	74HCT08N	* .141	.106	
246060CH	74HCT14M	* .158	.143	
44935CH	74HCT14N	.20	.158	.143
246123CH	74HCT32M	* .141	.126	
45057CH	74HCT32N	* .149	.112	
246254CH	74HCT74M	* .158	.143	
45137CH	74HCT74N	.25	.21	.16
268429CH	74HCT86M	.33	.29	.20
45145CH	74HCT86N	.22	.18	.12
271960CH	74HCT123M	.29	.26	.23
88049CH	74HCT123N	.27	.23	.17
271994CH	74HCT125M	.33	.30	.23
243192CH	74HCT125N	.26	.216	.193
246051CH	74HCT138M	.27	.24	.19
44927CH	74HCT138N	.33	.282	.26
246271CH	74HCT139M	.25	.208	.193
63773CH	74HCT139N	.32	.266	.202
88057CH	74HCT154N	1.05	.82	.76
246297CH	74HCT157M	.41	.357	.269
272196CH	74HCT157N	.31	.26	.20
253024CH	74HCT164M	.30	.266	.244
44978CH	74HCT164N	.36	.30	.26
246086CH	74HCT240WM	.31	.29	.26
45014CH	74HCT240N	.32	.27	.20
246094CH	74HCT244WM	.39	.30	.23
45022CH	74HCT244N	.36	.32	.23
246107CH	74HCT245WM	.31	.257	.227
45031CH	74HCT245N	.37	.30	.23
246115CH	74HCT273WM	.38	.22	.17
45049CH	74HCT273N	.30	.257	.252
246131CH	74HCT373WM	.31	.257	.227
45065CH	74HCT373N	.39	.299	.227
246158CH	74HCT374WM	.31	.29	.23
45073CH	74HCT374N	.24	.20	.15
243205CH	74HCT393N	.43	.324	.244
246174CH	74HCT540WM	.43	.374	.266
109778CH	74HCT540N	.46	.349	.269
246191CH	74HCT541WM	.30	.257	.227
99303CH	74HCT541N	.41	.35	.26
246220CH	74HCT573WM	.39	.30	.23
45090CH	74HCT573N	.35	.30	.23
246238CH	74HCT574WM	.34	.32	.23
45102CH	74HCT574N	.39	.30	.23
45129CH	74HCT688N	.58	.49	.37

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## 74FXXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	Philips
F	DIP	SN74FXXXN	74FXXXN	74FXXXPC	N74FXXXN
	SOIC	SN74FXXXD/DW	74FXXXD	74FXXXSC	N74FXXXD

## 74F Series – General purpose family of high speed advanced bipolar logic



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			Texas Instruments – Save 6-10%				
Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100
74F00	SOIC-14	Quad 2-input NAND gate	282845CH	SN74F00D .....	\$.21	\$.16	\$.143
74F00	DIP-14	Quad 2-input NAND gate	281471CH	SN74F00N .....	.21	.16	.14
74F02	SOIC-14	Quad 2-input NOR gate	282888CH	SN74F02D .....	.24	.21	.17
74F02	DIP-14	Quad 2-input NOR gate	281480CH	SN74F02N .....	.29	.24	.19
74F04	SOIC-14	Hex inverter	283071CH	SN74F04D .....	.26	.23	.19
74F04	DIP-14	Hex inverter	281498CH	SN74F04N .....	.24	.18	.15
74F08	SOIC-14	Quad 2-input AND gate	283080CH	SN74F08D .....	.22	.18	.16
74F08	DIP-14	Quad 2-input AND gate	281501CH	SN74F08N .....	.22	.18	.16
74F14	SOIC-14	Hex inverter w/ schmitt trigger					
74F14	DIP-14	Hex inverter w/ schmitt trigger					
74F20	DIP-14	Dual 4-input NAND gate	281527CH	SN74F20N .....	.23	.20	.17
74F30	DIP-14	8-input NAND gate	281535CH	SN74F30N .....	.47	.40	.285
74F32	SOIC-14	Quad 2-input OR gate	283098CH	SN74F32D .....	.27	.24	.20
74F32	DIP-14	Quad 2-input OR gate	281543CH	SN74F32N .....	.36	.30	.22
74F38	SOIC-14	Quad 2-input NAND buffer	283119CH	SN74F38D .....	.22	.155	.138
74F38	DIP-14	Quad 2-input NAND buffer	281893CH	SN74F38N .....	.25	.22	.20
74F74	SOIC-14	Quad 2-input NAND buffer w/ open coll. outputs	283135CH	SN74F74D .....	.30	.264	.202
74F74	DIP-14	D-type flip-flop w/ clear	281906CH	SN74F74N .....	.44	.36	.247
74F86	SOIC-14	Quad 2-input OR gate	283143CH	SN74F86D .....	.31	.264	.202
74F86	DIP-14	Quad 2-input NOR gate	281914CH	SN74F86N .....	.36	.30	.21
74F125	SOIC-14	Quad bus buffer gate w/ 3-state outputs	283151CH	SN74F125D .....	.37	.30	.23
74F125	DIP-14	Quad bus buffer gate w/ 3-state outputs	281922CH	SN74F125N .....	.40	.35	.28
74F132	SOIC-14	Quad 2-input NAND schmitt trigger					
74F138	SOIC-16	3 to 8 decoder/demultiplexer	283186CH	SN74F138D .....	.34	.27	.25
74F138	DIP-16	3 to 8 decoder/demultiplexer	281931CH	SN74F138N .....	.42	.34	.26
74F139	DIP-16	1 of 4 decoder/demultiplexer					
74F148	SOIC-16	8 to 3 line priority encoder					
74F148	DIP-16	8 to 3 line priority encoder					
74F157	SOIC-16	2 to 1 data selector/multiplexers	283207CH	SN74F157AD .....	.37	.30	.28
74F157	DIP-16	2 to 1 data selector/multiplexers	281949CH	SN74F157AN .....	.42	.34	.26
74F161	SOIC-16	Sync. 4-bit binary counter	283469CH	SN74F161AD .....	.45	.34	.26
74F161	DIP-16	Sync. 4-bit binary counter	281957CH	SN74F161AN .....	.42	.33	.30
74F163	DIP-16	Sync. 4-bit binary counter	281965CH	SN74F163AN .....	.55	.446	.377
74F164	DIP-14	Shift register					
74F169	SOIC-16	4-bit up/down binary counter	283485CH	SN74F169D .....	2.19	2.09	2.00
74F169	DIP-16	4-bit up/down binary counter	281973CH	SN74F169N .....	.96	.87	.74
74F174	DIP-16	Hex D-type flip-flop w/ clear	282693CH	SN74F174N .....	.34	.27	.25
74F240	SOIC-20	Octal buffer/driver with 3-state outputs	283506CH	SN74F240DW .....	.43	.328	.248
74F240	DIP-20	Octal buffer/driver with 3-state outputs	281981CH	SN74F240N .....	.45	.34	.26
74F244	SOIC-20	Octal buffer/driver with 3-state outputs	283514CH	SN74F244DW .....	.52	.46	.36
74F244	DIP-20	Octal buffer/driver with 3-state outputs	281990CH	SN74F244N .....	.45	.34	.26
74F245	SOIC-20	Octal bus transceiver with 3-state outputs	283549CH	SN74F245DW .....	.45	.34	.26
74F245	DIP-20	Octal bus transceiver with 3-state outputs	282001CH	SN74F245N .....	.45	.34	.26
74F257	SOIC-16	Quad 2 to 1 data selector/multi w/ 3 -st. outputs	283565CH	SN74F257D .....	.43	.34	.26

† Note: Fairchild now owns National Semi logic; and Philips now owns Signetics.

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Part No.	Cross Ref.	1	10	100	
287697CH	74F00D	*	\$.141	\$.119	
286985CH	74F00N	*	.141	.126	
287689CH	74F02D	.21	.183	.148	
286993CH	74F02N	.25	.216	.151	
287671CH	74F04D	.23	.199	.168	
287005CH	74F04N	.21	.158	.119	
287662CH	74F08D	.20	.158	.143	
287013CH	74F08N	.20	.158	.129	
287654CH	74F14D	.22	.191	.176	
287021CH	74F14N	.22	.191	.159	
287030CH	74F20N	.21	.174	.149	
245121CH	74F30N	.41	.349	.252	
287638CH	74F32D	.24	.208	.176	
287048CH	74F32N	.20	.183	.16	
283127CH	74F38D	.20	.141	.126	
245139CH	74F38N	.22	.191	.176	
287620CH	74F74D	.27	.241	.171	
287056CH	74F74N	.39	.315	.199	
287611CH	74F86D	.28	.241	.185	
287064CH	74F86N	.32	.266	.185	
283160CH	74F125D	.33	.266	.202	
245147CH	74F125N	.35	.307	.244	
283178CH	74F132D	.32	.257	.235	
287566CH	74F138D	.30	.241	.218	
287072CH	74F138N	.37	.299	.227	
287081CH	74F139N	.26	.216	.189	
283194CH	74F148D	.36	.315	.244	
245163CH	74F148N	.27	.241	.202	
283215CH	74F157AD	.33	.266	.244	
245171CH	74F157AN	.37	.299	.227	
283477CH	74F161AD	.39	.299	.227	
245180CH	74F161AN	.37	.291	.26	
245198CH	74F163AN	.50	.407	.34	
245201CH	74F164AN	.40	.299	.269	
283493CH	74F169D	.68	.56	.52	
245219CH	74F169N	.88	.80	.67	
282731CH	74F174N	.30	.241	.218	
287558CH	74F240D	.39	.299	.227	
245227CH	74F240N	.39	.299	.227	
287540CH	74F244D	.46	.407	.319	
287110CH	74F244N	.39	.299	.198	
287531CH	74F245D	.39	.299	.227	
287144CH	74F245N	.53	.402	.302	
283557CH	74F257D	.38	.299	.227	

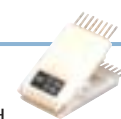


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Part No.	Cross Ref.	Description	1	10	25
22103CH	JTC16	16-pin (for 8, 14 and 16-pin ICs)	\$6.95	\$6.25	\$5.59
22120CH	JTC20	20-pin (for 18 and 20-pin ICs)	8.95	6.50	5.35
22162CH	JTC28	28-pin (for 24 and 28-pin ICs)	10.95	9.95	8.95
22189CH	JTC40	40-pin (for 32 and 40-pin ICs)	11.95	11.35	10.75



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Base No.	Package	Description	Part No. T.I. Product No.
74F257	DIP-16	Quad 2 to 1 data selector/multi w/ 3-st. outputs	282044CH SN74F257N ..... \$ .34 \$ .28 \$ .26
74F273	DIP-20	Octal D-type flip-flop	
74F299	DIP-20	8-bit shift/storage register w/ 3-state outputs	282052CH SN74F299N ..... 1.25 1.00 .76
74F373	SOIC-20	Octal transparent D-type latch w/ 3-state outputs	283590CH SN74F373DW ..... .44 .355 .267
74F373	DIP-20	Octal transparent D-type latch w/ 3-state outputs	282079CH SN74F373N ..... .60 .46 .35
74F374	SOIC-20	Octal edge triggered D-type latch w/ 3-st. outputs	283602CH SN74F374DW ..... .43 .33 .25
74F374	DIP-20	Octal edge trig. D-type flip-flop with 3-st. outputs	282600CH SN74F374N ..... .40 .31 .257
74F521	SOIC-20	8-bit identity comparator	283670CH SN74F521DW ..... .50 .382 .294
74F521	DIP-20	8-bit identity comparator	282802CH SN74F521N ..... .78 .66 .53
74F541	SOIC-20	Octal buffer/driver with 3-state outputs	304961CH SN74F541DW ..... .72 .55 .41
74F541	DIP-20	Octal buffer/driver with 3-state outputs	282765CH SN74F541N ..... .74 .56 .43
74F543	SOIC-24	Octal reg. Transceiver w/ 3-state outputs	283611CH SN74F543DW ..... .95 .80 .62
74F543	DIP-24	Octal reg. Transceiver w/ 3-state outputs	
74F573	SOIC-20	Octal reg. Latch w/ 3-state outputs	283637CH SN74F573DW ..... .43 .328 .248
74F573	DIP-20	Octal reg. Latch w/ 3-state outputs	282642CH SN74F573N ..... .43 .328 .248
74F574	SOIC-20	D-type flip-flop with 3-state outputs	283645CH SN74F574DW ..... .43 .328 .304
74F574	DIP-20	D-type flip-flop with 3-state outputs	282669CH SN74F574N ..... .58 .437 .331
74F579	DIP-20	8-bit bidirectional counter	

† Note: Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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Part No.	Cross Ref.	1	10	100
245235CH	74F257N	\$ .30	\$ .249	\$ .244
287099CH	74F273N	.48	.415	.319
281463CH	74F299N	1.15	.93	.71
287494CH	74F373D	.40	.324	.244
287161CH	74F373N	.45	.398	.302
287486CH	74F374D	.39	.299	.227
287187CH	74F374N	.35	.274	.23
283696CH	74F521D	.46	.349	.269
282811CH	74F521N	.69	.58	.47
283653CH	74F541D	.66	.498	.378
282773CH	74F541N	.66	.498	.378
283629CH	74F543D	.86	.73	.59
245251CH	74F543N	.83	.70	.56
287478CH	74F573D	.39	.299	.198
287195CH	74F573N	.39	.299	.199
287460CH	74F574D	.39	.299	.198
287216CH	74F574N	.53	.398	.302
245260CH	74F579N	2.35	1.89	1.49

## 74LSXXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	On Semi	RENESAS
LS	DIP	SN74LSXXXN	74HC(T)XXXN	DM74LSXXXN	SN74LSXXXN	HD74LSXXXP
	SOIC	SN74LSXXXD/DW	74HC(T)XXXM	DM74LSXXXM/WM	SN74LSXXXD/DW	—

## 74LS Series – Low Power Schottky Logic



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Quantity SAVE

Texas Instruments – Save 6-10%			
Base No.	Package	Description	Part No. T.I. Product No.
74LS00	SOIC-14	Quad 2-input NAND gate	308582CH SN74LS00D ..... * \$ .171 \$ .118
74LS00	DIP-14	Quad 2-input NAND gate	283725CH SN74LS00N ..... .45 .364 .276
74LS02	SOIC-14	Quad 2-input NOR gate	308603CH SN74LS02D ..... .45 .364 .276
74LS02	DIP-14	Quad 2-input NOR gate	283741CH SN74LS02N ..... .43 .328 .248
74LS03	DIP-14	Quad 2-input NAND gate (O.C.)	283784CH SN74LS03N ..... .45 .364 .276
74LS04	SOIC-14	Hex inverter	308611CH SN74LS04D ..... .45 .364 .276
74LS04	DIP-14	Hex inverter	283792CH SN74LS04N ..... .45 .364 .276
74LS05	SOIC-14	Hex inverter (O.C.)	308620CH SN74LS05D ..... .45 .364 .276
74LS05	DIP-14	Hex inverter (O.C.)	283805CH SN74LS05N ..... .45 .364 .276
74LS06	SOIC-14	Hex inverter buffer/driver (O.C.)	309067CH SN74LS06D ..... .70 .59 .478
74LS06	DIP-14	Hex inverter buffer/driver (O.C.)	295304CH SN74LS06N ..... .70 .59 .478
74LS07	SOIC-14	Hex buffer/driver (O.C. hi-voltage)	308638CH SN74LS07D ..... .70 .57 .478
74LS07	DIP-14	Hex buffer/driver (O.C. hi-voltage)	295312CH SN74LS07N ..... .60 .58 .46
74LS08	SOIC-14	Quad 2-input AND gate	308654CH SN74LS08D ..... .45 .364 .276
74LS08	DIP-14	Quad 2-input AND gate	295401CH SN74LS08N ..... .45 .364 .276
74LS09	SOIC-14	Quad 2-input AND gate (O.C.)	309083CH SN74LS09D ..... .45 .364 .276
74LS09	DIP-14	Quad 2-input AND gate (O.C.)	295419CH SN74LS09N ..... .56 .428 .322
74LS10	SOIC-14	Triple 3-input NAND gate	
74LS10	DIP-14	Triple 3-input NAND gate	295427CH SN74LS10N ..... .45 .364 .276
74LS11	SOIC-14	Triple 3-input AND gate	
74LS11	DIP-14	Triple 3-input AND gate	295443CH SN74LS11N ..... .45 .364 .275
74LS14	SOIC-14	Hex inverter Schmitt trigger	308849CH SN74LS14D ..... .41 .327 .248
74LS14	DIP-14	Hex inverter Schmitt trigger	295460CH SN74LS14N ..... .41 .328 .248

† Note: Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola; Renesas is the new company formed by the merger of Mitsubishi and Hitachi

\*10 pcs. in 74LS series IC cabinet kit, pg 29

\*\*20 pcs. in 74LS series IC cabinet kit, pg 29

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SALE

Lower \$\$\$

Quantity SAVE

Texas Instruments – Save 6-10%				Part No.	T.I. Product No.	1	10	100
Base No.	Package	Description						
74LS20	SOIC-14	Dual 4-input NAND gate						
74LS20	DIP-14	Dual 4-input NAND gate						
74LS21	DIP-14	Dual 4-input AND gate						
74LS27	DIP-14	Triple 3-input NOR gate						
74LS30	SOIC-14	8-input NAND gate						
74LS30	DIP-14	8-input NAND gate						
74LS32	SOIC-14	Quad 2-input OR gate						
74LS32	DIP-14	Quad 2-input OR gate						
74LS37	DIP-14	Quad 2-input NAND gate buffer						
74LS38	DIP-14	Quad 2-input NAND gate buffer (O.C.)						
74LS42	DIP-16	BCD-to-decimal decoder/driver						
74LS47	DIP-16	BCD to 7-seg. decoder/driver (O.C.)						
74LS48	DIP-16	BCD to 7-seg. decoder/driver						
74LS73	DIP-14	Dual JK flip-flop with clear						
74LS74	SOIC-14	Dual D flip-flop						
74LS74	DIP-14	Dual D flip-flop						
74LS75	SOIC-16	4-bit bi-stable latch						
74LS75	DIP-16	4-bit bi-stable latch						
74LS76	DIP-16	Dual JK flip-flop with preset and clear						
74LS83	DIP-16	4-bit binary full adder						
74LS85	SOIC-16	4-bit magnitude comparator						
74LS85	DIP-16	4-bit magnitude comparator						
74LS86	SOIC-14	Quad Exclusive-OR gate						
74LS86	DIP-14	Quad Exclusive-OR gate						
74LS90	SOIC-14	Decade counter						
74LS90	DIP-14	Decade counter						
74LS92	DIP-14	Divide-by-12 counter						
74LS93	SOIC-14	4-bit binary counter						
74LS93	DIP-14	4-bit binary counter						
74LS95	DIP-14	4-bit parallel-access shift register						
74LS107	DIP-14	Dual JK flip-flop with clear						
74LS109	SOIC-16	Dual JK pos. edge-trig. flip-flop						
74LS109	DIP-16	Dual JK pos. edge-trig. flip-flop						
74LS112	DIP-16	Dual JK neg. edge-trig. flip-flop						
74LS122	DIP-14	Retrig. mono. multivibrator comm. CLK						
74LS123	SOIC-16	Dual mono. multivibrator with clear						
74LS123	DIP-16	Dual mono. multivibrator with clear						
74LS125	SOIC-14	Quad 3-state buffer						
74LS125	DIP-14	Quad bus buffer neg. enable tri-state						
74LS126	SOIC-14	Quad bus buffer tri-state						
74LS126	DIP-14	Quad bus buffer tri-state						
74LS132	DIP-14	Quad 2-input NAND Schmitt trigger						
74LS136	DIP-14	Quad EXCLUSIVE-OR gate (O.C.)						
74LS138	SOIC-16	3 to 8 decoder/demultiplexer						
74LS138	DIP-16	3 to 8 decoder/demultiplexer						
74LS139	SOIC-16	2 to 4 decoder/demultiplexer						
74LS139	DIP-16	2 to 4 decoder/demultiplexer						
74LS145	SOIC-16	BCD-to-decimal decoder/driver						
74LS145	DIP-16	BCD-to-decimal decoder/driver						
74LS148	DIP-16	8 to 3 priority encoder						
74LS151	SOIC-16	8-input multiplexer						
74LS151	DIP-16	8-input multiplexer						
74LS153	DIP-16	Dual 4-to-1 selector/multiplexer						
74LS154	DIP-24	4 to 16 line decoder/demultiplexer						
74LS155	DIP-16	Dual 2/4 demultiplexer						
74LS156	DIP-16	Dual 2/4 demultiplexer (O.C.)						
74LS157	SOIC-16	Quad 2/1 data selector						
74LS157	DIP-16	Quad 2/1 data selector						
74LS160	DIP-16	Decade counter with asynch. clear						

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 \* 10 pcs. in 74LS series IC cabinet kit, pg 29 \* 20 pcs. in 74LS series IC cabinet kit, pg 29

DIP



SOIC



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Part No.	Cross Ref.	1	10	100
198459CH	74LS20M	.51	\$ .44	(\$ .32)
47095CH	74LS20N*	.28	.191	.185
47108CH	74LS21N	.25	.21	(.16)
47378CH	74LS27N	.41	.31	(.233)
198467CH	74LS30M	\$.51	.24	.20
47458CH	74LS30N*	.41	.332	(.252)
198475CH	74LS32M	.41	.332	.252
47466CH	74LS32N**	.29	.26	.23
47597CH	74LS37N	.54	.46	(.34)
47693CH	74LS38N	.33	.224	.202
47773CH	74LS42N	.76	.65	.54
47790CH	74LS47N*	.72	.52	.45
47811CH	74LS48N	4.99	4.24	(3.18)
47992CH	74LS73N*	.37	.338	.238
198491CH	74LS74M	.41	.332	(.252)
48004CH	74LS74N**	.36	.25	.22
198504CH	74LS75M	.68	.57	.41
48021CH	74LS75N*	.86	.73	(.55)
48039CH	74LS76N	.69	.62	.55
48063CH	74LS83N	1.49	1.35	1.19
198512CH	74LS85M	.62	.437	.36
48071CH	74LS85N*	.42	.382	.353
198521CH	74LS86M	.41	.33	(.25)
48098CH	74LS86N*	.35	.30	.22
198539CH	74LS90M	\$.82	.70	.52
48119CH	74LS90N*	.49	.45	.39
48143CH	74LS92N	.99	.82	(.60)
198547CH	74LS93M	\$.66	.56	.476
48151CH	74LS93N*	.89	.79	.70
48178CH	74LS95N	1.05	.91	.79
46412CH	74LS107N	.72	.51	.36
309112CH	74LS109M	.59	.448	.34
46421CH	74LS109N	.57	.48	(.35)
46447CH	74LS112N	.39	.299	.227
46471CH	74LS122N	.46	.35	.27
198555CH	74LS123M	.46	.35	.27
46480CH	74LS123N*	.45	.35	.27
243168CH	74LS125AM	.46	.349	.265
46501CH	74LS125N*	.33	.282	.26
309139CH	74LS126AM	.46	.349	.265
46527CH	74LS126N	.37	.345	.253
46551CH	74LS132N	.49	.369	.298
46586CH	74LS136N	.53	.40	.30
198563CH	74LS138M	.46	.349	.269
46607CH	74LS138N**	.45	.35	.26
309155CH	74LS139AM	.37	.299	.265
46623CH	74LS139N*	.46	.39	(.29)
309171CH	74LS145M	.34	.291	.269
46666CH	74LS145N	.42	.37	.33
46682CH	74LS148N	.79	.68	.55
198571CH	74LS151M	.31	.26	(.20)
46703CH	74LS151N*	.45	.349	.269
46720CH	74LS153N	.41	.35	(.26)
46738CH	74LS154N	5.15	4.59	3.69
46754CH	74LS155N*	.74	.63	(.47)
46762CH	74LS156N	.35	.282	(.212)
198580CH	74LS157M	.30	.26	(.19)
46771CH	74LS157N*	.45	.40	.33
46800CH	74LS160N	2.49	2.39	2.29



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**Quantity SAVE**

Base No.	Package	Description
74LS161	DIP-16	Synch 4-bit counter
74LS163	DIP-16	Fully synch. 4-bit counter
74LS164	SOIC-14	8-bit serial shift register
74LS164	DIP-14	8-bit serial shift register
74LS165	DIP-16	8-bit serial shift register, parallel load
74LS166	DIP-16	8-bit shift register, parallel load
74LS169	DIP-16	Synch. binary up/down counter
74LS173	DIP-16	4-bit D-type reg. tri-state
74LS174	DIP-16	Hex D flip-flop with clear
74LS175	DIP-16	Quad D flip-flop with clear
74LS181	DIP-24	Arithmetic logic unit/function generator
74LS190	DIP-16	Synchronous up/down counter
74LS191	DIP-16	Up/down binary counter
74LS192	DIP-16	Decade up/down counter with clear
74LS193	SOIC-16	Binary up/down counter with clear
74LS193	DIP-16	Binary up/down counter with clear
74LS194	DIP-16	4-bit bi-directional shift register
74LS195	DIP-16	4-bit parallel-access shift register
74LS221	SOIC-16	Dual monostable multivibrator
74LS221	DIP-16	Dual mono. multivibrator Schmitt trigger
74LS240	SOIC-20	Octal invert. line driver tri-state
74LS240	DIP-20	Octal invert. line driver tri-state
74LS241	DIP-20	Octal bus/line driver tri-state
74LS244	SOIC-20	Octal driver tri-state
74LS244	DIP-20	Octal driver tri-state
74LS245	SOIC-20	Octal bus transceiver tri-state
74LS245	DIP-20	Octal bus transceiver tri-state
74LS247	DIP-16	BCD to 7-segment decoder/driver (O.C.)
74LS251	DIP-16	8-channel multiplexer tri-state
74LS257	DIP-16	Quad 2-input multiplexer tri-state
74LS259	DIP-16	8-bit addressable latch
74LS266	DIP-14	Quad EXCLUSIVE-NOR gate (O.C.)
74LS273	SOIC-20	Octal D-type flip-flop with clear
74LS273	DIP-20	Octal D-type flip-flop with clear
74LS279	DIP-16	Quad set-reset latches
74LS283	DIP-16	4-bit binary full add with fast carry
74LS299	DIP-20	8-bit universal shift/storage register
74LS365	DIP-16	Hex buffer with logical OR tri-state
74LS367	DIP-16	Hex buffer tri-state
74LS368	DIP-16	Hex bus driver w/ tri-state
74LS373	SOIC-20	Octal D flip-flop tri-state
74LS373	DIP-20	Octal D flip-flop tri-state
74LS374	SOIC-20	Octal D F/F edge-trig tri-state
74LS374	DIP-20	Octal D F/F edge-trig tri-state
74LS377	DIP-20	Octal D register common enable
74LS390	DIP-16	Dual 4-bit decade counter
74LS393	SOIC-16	Dual 4-bit binary counter
74LS393	DIP-14	Dual 4-bit binary counter
74LS423	DIP-14	Retrig monostable multivibrator
74LS540	DIP-20	Octal invert. buffer/line driver tri-state
74LS541	SOIC-20	Octal buffer/line driver tri-state
74LS541	DIP-20	Octal buffer/line driver tri-state
74LS573	DIP-20	Octal D-type F/F latch tri-state
74LS574	DIP-20	Octal D-type F/F edge-trig. tri-state
74LS590	DIP-16	8-bit binary counter w/o reg. tri-state
74LS595	DIP-16	8-bit serial-to-parallel shift reg. tri-state
74LS645	DIP-20	Octal bus transceiver tri-state
74LS682	DIP-20	8-bit magnitude comparator
74LS688	DIP-20	8-bit magnitude comparator

Texas Instruments		– Save 6-10%		
Part No.	T.I. Product No.	1	10	100
301647CH	SN74LS161AN	.50	.382	.29
301663CH	SN74LS163AN	.50	.382	.29
309180CH	SN74LS164D	.50	.414	.373
301671CH	SN74LS164N	.47	.382	.29
301680CH	SN74LS165AN	.45	.364	.275
301727CH	SN74LS166AN	.79	.60	.455
301735CH	SN74LS169BN	.65	.491	.373
301743CH	SN74LS173AN	.91	.90	.89
301760CH	SN74LS174N	.49	.328	.29
301778CH	SN74LS175N	.29	.246	.23
301786CH	SN74LS181N	4.19	3.54	2.56
301815CH	SN74LS191N	.58	.482	.455
301831CH	SN74LS193N	.64	.53	.486
301858CH	SN74LS194AN	.81	.68	.55
308988CH	SN74LS221D	.79	.65	.59
308283CH	SN74LS221N	.36	.29	.276
309008CH	SN74LS240DW	.58	.437	.331
308291CH	SN74LS240N	.35	.30	.294
308304CH	SN74LS241N	.40	.328	.304
309016CH	SN74LS244DW	.58	.437	.331
308312CH	SN74LS244N	.48	.40	.331
309024CH	SN74LS245DW	.43	.328	.248
308321CH	SN74LS245N	.58	.437	.378
308347CH	SN74LS247N	1.05	.87	.70
308355CH	SN74LS251N	.59	.437	.351
308363CH	SN74LS257BN	.61	.464	.352
308371CH	SN74LS259BN	.51	.391	.359
308380CH	SN74LS266N	.72	.60	.54
309032CH	SN74LS273DW	.58	.437	.331
308398CH	SN74LS273N	.58	.437	.331
308401CH	SN74LS279AN	.55	.428	.368
308435CH	SN74LS283N	.44	.428	.405
308427CH	SN74LS299N	.72	.66	.62
308443CH	SN74LS365AN	.86	.73	.59
308451CH	SN74LS367AN	.44	.355	.331
309278CH	SN74ALS368AN	.42	.364	.34
309041CH	SN74LS373DW	.43	.328	.248
308460CH	SN74LS373N	.49	.421	.378
309059CH	SN74LS374DW	.58	.437	.331
308478CH	SN74LS374N	.49	.421	.367
308486CH	SN74LS377N	.81	.68	.55
308494CH	SN74LS390N	.77	.64	.53
308507CH	SN74LS393N	.57	.455	.432
309294CH	SN74LS423N	1.05	.87	.76
308515CH	SN74LS540N	.76	.64	.515
309227CH	SN74LS541DW	.60	.455	.414
308523CH	SN74LS541N	.50	.41	.368
308531CH	SN74LS590N	4.99	4.05	3.65
308540CH	SN74LS595N	4.99	4.05	3.65
308558CH	SN74LS645-1N	1.79	1.44	1.10
309251CH	SN74LS682N	1.19	.956	.73
308574CH	SN74LS688N	.87	.83	.76



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Part No.	Cross Ref.	1	10	100
46818CH	74LS161N	\$.46	\$.349	\$.265
46842CH	74LS163N	.46	.349	.265
309198CH	74LS164M	.46	.349	.265
46851CH	74LS164N	.43	.36	.27
46877CH	74LS165N	.41	.33	.252
46885CH	74LS166N	.71	.54	.41
46906CH	74LS169N	.61	.47	.35
46922CH	74LS173N	.82	.81	.80
46931CH	74LS174N*	.46	.299	.265
46957CH	74LS175N*	.26	.249	.21
46973CH	74LS181N	1.95	1.64	1.11
46990CH	74LS190N	2.95	2.65	2.55
47001CH	74LS191N	.53	.44	.42
47010CH	74LS192N	3.95	3.59	3.25
198598CH	74LS193M	.87	.74	.55
47036CH	74LS193N*	.59	.49	.45
47052CH	74LS194N	.74	.63	.50
47061CH	74LS195N	.81	.66	.46
243176CH	74LS221M	.72	.55	.42
47124CH	74LS221N	.33	.267	.25
198619CH	74LS240M	.53	.40	.30
47141CH	74LS240N*	.32	.27	.294
47167CH	74LS241N	.36	.299	.23
198627CH	74LS244M	.53	.398	.302
47183CH	74LS244N*	.44	.37	.28
198635CH	74LS245M	.39	.299	.227
47212CH	74LS245N*	.53	.40	.35
47247CH	74LS247N	.94	.80	.62
47271CH	74LS251N	.53	.398	.299
47298CH	74LS257N	.56	.423	.322
47327CH	74LS259N	.47	.357	.328
47360CH	74LS266N	.65	.498	.378
198643CH	74LS273M	.53	.398	.302
47386CH	74LS273N*	.45	.357	.276
47407CH	74LS279N	.50	.41	.319
47423CH	74LS283N	.40	.36	.27
47440CH	74LS299N	\$.66	.53	.45
47546CH	74LS365N	.77	.66	.54
47562CH	74LS367N	.40	.324	.243
309286CH	74ALS368AN	.39	.332	.311
198651CH	74LS373M	.39	.299	.227
47600CH	74LS373N*	.45	.39	.35
198660CH	74LS374M	.53	.398	.302
47634CH	74LS374N*	.45	.39	.34
47669CH	74LS377N	.31	.20	.15
47722CH	74LS390N	.69	.59	.44
243184CH	74LS393M	.79	.60	.45
47731CH	74LS393N	.52	.44	.33
309307CH	74LS423AN	.95	.79	.69
47861CH	74LS540N	.69	.59	.47
309235CH	74LS541WM	.55	.415	.378
47870CH	74LS541N	.46	.39	.29
64418CH	74LS573N	2.05	1.85	1.55
64426CH	74LS574N	2.15	1.89	1.69
47909CH	74LS590N	4.55	3.65	2.74
103974CH	74LS595N	4.55	3.87	2.90
47950CH	74LS645N	1.59	1.31	1.00
309260CH	74LS682N	1.05	.86	.66
47984CH	74LS688N	.80	.68	.51

† Note: Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola; Renesas is the new company formed by the merger of Mitsubishi and Hitachi  
 \* 10 pcs. in 74LS series IC cabinet kit, pg 29

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 74ALS Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
309868CH	74ALS00AM	SOIC-14	Quad 2-input NAND gate	.22	\$.191	\$.176
245294CH	74ALS00AN	DIP-14	Quad 2-input NAND gate	.39	.30	.23
309905CH	74ALS02AM	SOIC-14	Quad 2-input NOR gate	.31	.274	.202
43959CH	74ALS02N	DIP-14	Quad 2-input NOR gate	.30	.27	.22
309948CH	74ALS04BM	SOIC-14	Hex inverters	.31	.274	.198
245307CH	74ALS04BN	DIP-14	Hex inverters	.38	.33	.23
309972CH	74ALS05AM	SOIC-14	Hex inverters w/ open collector outputs	.31	.274	.202
245286CH	74ALS05AN	DIP-14	Hex inverters w/ open collector outputs	.38	.33	.23
310009CH	74ALS08M	SOIC-14	Quad 2-input AND gate	.31	.274	.198
43983CH	74ALS08N	DIP-14	Quad 2-input AND gate	.28	.25	.21
310025CH	74ALS10AM	SOIC-14	Triple 3-input NAND gate	.27	.257	.227
245315CH	74ALS10AN	DIP-14	Triple 3-input NAND gate	.31	.30	.28
310041CH	74ALS11AM	SOIC-14	Triple 3-input AND gate	.31	.274	.202
245323CH	74ALS11AN	DIP-14	Triple 3-input AND gate	.43	.38	.28
310068CH	74ALS27M	SOIC-14	Triple 3-input NOR gate	.33	.282	.218
63503CH	74ALS27N	DIP-14	Triple 3-input NOR gate	.26	.22	.17
245796CH	74ALS30AN	DIP-14	8-input NAND gate	.39	.30	.23
310084CH	74ALS32M	SOIC-14	Quad 2-input OR gate	.23	.133	.126
44134CH	74ALS32N	DIP-14	Quad 2-input OR gate	.40	.32	.23
310113CH	74ALS74AM	SOIC-14	Dual D-pos. edge trig flip-flops w/ preset & clear	.21	.166	.143
245892CH	74ALS74AN	DIP-14	Dual D-pos. edge trig. flip-flops w/ preset & clear	.39	.30	.23
310156CH	74ALS86M	SOIC-14	Quad 2-input exclusive OR gate	.37	.299	.227
44214CH	74ALS86N	DIP-14	Quad 2-input exclusive OR gate	.25	.21	.16
310199CH	74ALS138M	SOIC-16	3 to 8 line decoder/demultiplexer	.46	.349	.269
309614CH	74ALS138N	DIP-16	3 to 8 line decoder/demultiplexer	.46	.349	.265
310228CH	74ALS139M	SOIC-16	2 to 4 line decoder/demultiplexer	.44	.349	.297
309649CH	74ALS139N	DIP-16	2 to 4 line decoder/demultiplexer	.59	.448	.336
245754CH	74ALS151N	DIP-16	1 of 8 line data selector/multiplexer	.48	.37	.29
309761CH	74ALS161BN	DIP-16	4-bit decade/binary counter	.42	.34	.283
309702CH	74ALS174N	DIP-8	Quad D-type flip-flop w/ clear	.53	.398	.302
309729CH	74ALS175N	DIP-16	Quad D-type flip-flop w/ clear	.52	.398	.302
310261CH	74ALS240AM	SOIC-20	Octal 3-state bus driver	.39	.315	.294
245753CH	74ALS240AN	DIP-20	Octal 3-state bus driver	.49	.38	.29
310295CH	74ALS244AM	SOIC-20	Octal 3-state bus driver	.59	.448	.336
245761CH	74ALS244AN	DIP-20	Octal 3-state bus driver	.53	.41	.30
310332CH	74ALS245AM	SOIC-20	Octal 3-state bus transceiver	.59	.448	.336
245770CH	74ALS245AN	DIP-20	Octal 3-state bus transceiver	.45	.35	.27
44100CH	74ALS251N	DIP-16	3-st. 1 of 8 line data selector/multiplexer	.58	.49	.37
245788CH	74ALS258N	DIP-20	3-st. quad 1 of 2 line data selector/multip. (inverting)	.67	.51	.39
310359CH	74ALS273M	SOIC-20	Octal D-type edge trig flip-flops w/ clear outputs	.71	.60	.454
44118CH	74ALS273N	DIP-20	Octal D-type edge trig. flip-flops w/ clear inputs	.62	.53	.40
310421CH	74ALS373M	SOIC-20	Octal D-type 3-st transparent latches	.59	.448	.34
44142CH	74ALS373N	DIP-20	Octal D-type 3-st. transparent latches	.34	.29	.22
310455CH	74ALS374M	SOIC-20	Octal 3-st D-type edge trig flip-flops	.41	.357	.328
245809CH	74ALS374AN	DIP-20	Octal 3-st. D-type edge trig. flip-flops	.49	.38	.29
310471CH	74ALS520M	SOIC-20	8-bit comparator	1.12	.90	.77
245817CH	74ALS520N	DIP-20	8-bit comparator	1.12	.95	.76
245825CH	74ALS521N	DIP-20	8-bit comparator	1.37	1.16	.82
245833CH	74ALS533N	DIP-20	Octal D-type transparent latches w/ 3-st. outputs	1.21	1.02	.73
310535CH	74ALS540M	SOIC-20	Octal inverting buffers & line driver w/ 3-st outputs	1.22	1.08	.87
245841CH	74ALS540N	DIP-20	Octal inverting buffers & line driv. w/ 3-st. outputs	.80	.67	.54
310551CH	74ALS541M	SOIC-20	Octal buffers and line drivers w/ 3-st outputs	.74	.62	.504

## 74LS Series IC Kit

Includes:

20-drawer component cabinet (319599CH),  
20 clear plastic drawers (319601CH),  
20 clear dividers (319610CH), pg 244 and  
30 adhesive labels for drawers to identify parts in kit

10 each: 74LS05, 74LS10, 74LS11, 74LS14, 74LS20, 74LS30,  
74LS47, 74LS73, 74LS75, 74LS85, 74LS86, 74LS90

74LS93, 74LS123, 74LS125, 74LS139, 74LS151, 74LS155, 74LS157, 74LS174,  
74LS175, 74LS193, 74LS240, 74LS244, 74LS245, 74LS273, 74LS373, 74LS374

20 each: 74LS00, 74LS02, 74LS04, 74LS08, 74LS32, 74LS74, 74LS138

Part No.	Description	Wt. (lbs.)	1	10
84961CH	420 pcs. 74LS IC kit	6.7	\$119.95	\$107.95
130391CH	Refill for 84961CH (420 pcs.)	2.0	99.99	89.99

Color Code Legend			
New	Sale	Lower\$	QtySave

## 74ALS Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
245850CH	74ALS541N	DIP-20	Octal buffers & line drivers w/ 3-st. outputs ..	\$.79	\$.67	\$.55
310578CH	74ALS573BMDIP-20		Octal D-type transp. latch w/ 3-st. outputs ..	.59	.448	.336
245868CH	74ALS573BN	DIP-20	Octal D-type transp. latch w/ 3-st. outputs ..	.43	.36	.29
310623CH	74ALS574AM	SOIC-20	Octal D-type edge trigg flip-flops w/ 3-st outputs ..	.59	.448	.336
245876CH	74ALS574AN	DIP-20	Octal D-type edge trigg flip-flops w/ 3-st. outputs ..	.43	.39	.36
310640CH	74ALS645AM	SOIC-20	Octal bus transceivers .....	.74	.60	.546
245884CH	74ALS645AN	DIP-20	Octal bus transceivers .....	.98	.83	.67
309796CH	74ALS688N	DIP-20	8-bit identity comparator .....	2.95	2.39	1.88

## Jameco's 3.3 Volt Logic

## 74LVC Series



For 3.3V power Supplies. This 3.3V logic series is offered in both 8 and 16-bit functions.

Part No.	Cross Ref.	Pkg.	Description	1	10	100
313429CH	74LVC00AD	SOIC-14	Quad 2-input NAND gate	.38	\$.299	\$.21
313470CH	74LVC04AD	SOIC-14	Hex inverter	.38	.307	.21
313488CH	74LVC08AD	SOIC-14	Quad 2-input AND gate	.38	.307	.21
313496CH	74LVC14AD	SOIC-14	Hex inverter w/ schmitt trigger	.38	.307	.21
313517CH	74LVC32AD	SOIC-14	Quad 2-input OR gate	.38	.307	.21
313533CH	74LVC74AD	SOIC-14	Dual D-type flip-flop w/ set/reset	.38	.299	.21
313576CH	74LVC125AD	SOIC-14	Quad bus buffer w/ 3-st	.27	.216	.185
313613CH	74LVC138AD	SOIC-16	3-to-8 line decoder/demultiplexer	.37	.299	.227
313621CH	74LVC157AD	SOIC-16	2-to-1 line decoder/demultiplexer	.37	.299	.227
313648CH	74LVC244AD	SOIC-20	Octal buffer/driver w/ 3-st	.41	.332	.252
313630CH	74LVC245AD	SOIC-20	4-bit sync binary counter	.41	.332	.252
313584CH	74LVC374AD	SOIC-20	Octal D-type flip-flop w/ 3-st	.41	.332	.252
313541CH	74LVC541AD	SOIC-20	Octal buffer/driver w/ 3-st	.41	.332	.305
313461CH	74LVC573AD	SOIC-20	Octal D-type latch w/ 3-st	.41	.332	.252
313824CH	74LVC574AD	SOIC-20	Octal D-type flip-flop w/ 3-st	.41	.332	.252
313947CH	74LVC16244AT	TSSOP-48	16-bit buffer/driver w/ 3-st	.95	.79	.71
313955CH	74LVC16245AT	TSSOP-48	16-bit bus transceiver w/ 3-st	.95	.79	.71
313963CH	74LVC16244AT	TSSOP-48	16-bit buffer/driver w/ 3-st	.95	.79	.64

## 74ALVC Series



Ideal for Memory Interfacing. This 3.3V logic series is offered in both 8 and 16-bit functions.

Part No.	Cross Ref.	Pkg.	Description	1	10	100
313980CH	74ALVC00D	SOIC-14	Quad 2-input NAND gate	.33	\$.266	\$.202
314309CH	74ALVC00T	TSSOP-14	Quad 2-input NAND gate	.33	.265	.202
314000CH	74ALVC04D	SOIC-14	Hex inverter	.33	.266	.202
314229CH	74ALVC08D	SOIC-14	Quad 2-input AND gate	.33	.266	.202
314341CH	74ALVC08T	TSSOP-14	Quad 2-input AND gate	.33	.265	.20
314237CH	74ALVC32D	SOIC-14	Quad 2-input OR gate	.33	.266	.205
314333CH	74ALVC32T	TSSOP-14	Quad 2-input OR gate	.37	.29	.227
314253CH	74ALVC125	SOIC-14	Quad bus buffer w/ 3-state	.43	.324	.244
314405CH	74ALVC244T	TSSOP-14	Octal buffer/driver w/ 3-state	.44	.332	.261
314421CH	74ALVC245DW	SOIC-20	Octal bus transceiver w/ 3-state	.44	.336	.262
314430CH	74ALVC245T	TSSOP-20	Octal bus transceiver w/ 3-state	.44	.336	.261
314456CH	74ALVCH16244T	TSSOP-48	16-bit buffer/driver w/ 3-state	1.04	.84	.64
314499CH	74ALVCH16245T	TSSOP-48	16-bit buffer/driver w/ 3-state	1.04	.84	.64
314528CH	74ALVCH16373T	TSSOP-48	16-bit D-type latch w/ 3-state	1.04	.84	.64
314595CH	74ALVCH16374T	TSSOP-48	16-bit D-type flip-flop w/ 3-state	1.04	.84	.64
314616CH	74ALVCH162244T	TSSOP-48	16-bit buffer/driver w/ 3-state	1.05	.99	.90
314624CH	74ALVCH162374T	TSSOP-48	16-bit D-type flip-flop w/ 3-state	1.05	.99	.90
314632CH	74ALVCH164245T	TSSOP-20	16-bit level-shifting transceiver	1.12	.95	.77

## 4000 Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
12562CH	CD4001N**	DIP-14	Quad 2-input NOR gate	.29	\$.24	\$.19
197261CH	CD4001M	SOIC-14	Quad 2-input NOR gate	.28	.23	.18
12597CH	CD4007N	DIP-14	Dual comp. pair with inverter	.29	.25	.22
12634CH	CD4011N**	DIP-14	Quad 2-input NAND gate	.29	.24	.19
197270CH	CD4011M	SOIC-14	Quad 2-input NAND gate	.22	.208	.193
12677CH	CD4013N**	DIP-14	Dual D flip-flop with set/reset	.35	.25	.22

\*\*20 pcs. in 4000 series IC cabinet kit, pg 30



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 4000 Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
197288CH	CD4013M	SOIC-14	Dual D flip-flop with set/reset	\$ .30	\$ .26	\$ .195
12706CH	CD4015N*	DIP-16	Dual 4-stage static shift register	.45	.37	.28
12722CH	CD4016N*	DIP-14	Quad bilateral switch	.28	.24	.18
12749CH	CD4017N*	DIP-16	Decade counter/divider	.39	.35	.31
197296CH	CD4017M	SOIC-16	Decade counter/divider	.56	.45	.33
12773CH	CD4018N	DIP-16	Presetttable divide-by-N counter	.30	.25	.23
12802CH	CD4020N*	DIP-16	14-stage binary/ripple counter	.49	.39	.29
197309CH	CD4020M	SOIC-16	14-stage binary/ripple counter	.62	.49	.36
12829CH	CD4021N	DIP-16	8-stage static shift register	.40	.34	.23
54666CH	CD4022N	DIP-16	Div. by 8-cntr./driver w/ 8-decoded outputs	.32	.27	.203
12845CH	CD4023N*	DIP-14	Triple 3-input NAND gate	.28	.23	.16
12853CH	CD4024N*	DIP-14	7-stage binary counter	.32	.27	.18
353560CH	CD4026N	DIP-16	Decade counter/divider	.62	.52	.45
12888CH	CD4027N*	DIP-16	Dual JK master-slave flip-flop	.27	.22	.16
197317CH	CD4027M	SOIC-16	Dual JK master-slave flip-flop	.41	.35	.26
12909CH	CD4028N	DIP-16	BCD-to-decimal decoder	.29	.22	.19
12925CH	CD4029N	DIP-16	Presetttable up/down counter	.32	.27	.18
197325CH	CD4029M	SOIC-16	Presetttable up/down counter	.40	.34	.26
12950CH	CD4040N*	DIP-16	12-stage binary/ripple counter	.32	.27	.18
197333CH	CD4040M	SOIC-16	12-stage binary/ripple counter	.56	.47	.34
12984CH	CD4042N	DIP-16	Quad clocked D latch	.25	.213	.159
12992CH	CD4043N	DIP-16	Quad NOR R-S latch tri-state	\$ .31	.28	.18
13004CH	CD4044N	DIP-16	Quad 3-state NAND R-S latch tri-state	.33	.28	.21
13012CH	CD4046N*	DIP-16	Micropower phase-locked loop	.30	.27	.23
13039CH	CD4047N	DIP-14	Monostable/astable multivibrator	.30	.25	.22
13055CH	CD4049N**	DIP-16	Hex/buffer/converter (inverting)	.29	.24	.21
197341CH	CD4049M	SOIC-16	Hex/buffer/converter (inverting)	.33	.28	.21
13071CH	CD4050N*	DIP-16	Hex/buffer/converter (N-inverting)	.25	.21	.19
197350CH	CD4050M	SOIC-16	Hex/buffer/converter (N-inverting)	.39	.33	.25
13098CH	CD4051N*	DIP-16	Single 8-channel multi./demultiplexer	.45	.39	.35
197368CH	CD4051M	SOIC-16	Single 8-channel multi./demultiplexer	\$ .30	.25	.16
13119CH	CD4052N	DIP-16	Diff. 4-channel multi./demultiplexer	.41	.332	.252
13127CH	CD4053N	DIP-16	Triple 2-channel multi./demultiplexer	\$ .41	.21	.191
13151CH	CD4060N	DIP-16	14-stage ripple-carry binary	.41	.33	.25
13186CH	CD4066N**	DIP-14	Quad bilateral switch	.35	.25	.19
197376CH	CD4066M	SOIC-14	Quad bilateral switch	.31	.232	.151
13215CH	CD4067N	DIP-24	16-channel analog multi./demultiplexer	.74	.63	.50
13231CH	CD4069N*	DIP-14	Hex inverter (74C04)	.30	.24	.17
197384CH	CD4069M	SOIC-14	Hex inverter (74C04)	.29	.208	.143
13258CH	CD4070N*	DIP-14	Quad EXCLUSIVE-OR gate (74C86)	.28	.24	.17
87847CH	CD4070M	SOIC-14	Quad EXCLUSIVE-OR gate	.28	.24	.17
13274CH	CD4071N*	DIP-14	Quad 2-input OR gate	.28	.238	.179
197392CH	CD4071M	SOIC-14	Quad 2-input OR gate	.30	.24	.17
13354CH	CD4081N*	DIP-14	Quad 2-input AND gate	.28	.26	.24
197405CH	CD4081M	SOIC-14	Quad 2-input AND gate	.35	.30	.22
13400CH	CD4093N*	DIP-14	Quad 2-input NAND Schmitt trigger	.29	.25	.19
197413CH	CD4093M	SOIC-14	Quad 2-input NAND Schmitt trigger	.30	.26	.19
13426CH	CD4094N	DIP-16	8-stage shift-and-store bus register	.41	.37	.31
13434CH	CD4098N	DIP-16	CMOS/MOS dual mono. multivibrator	.39	.299	.227
13442CH	CD4099N	DIP-16	8-bit addressable latch	.30	.27	.24
13469CH	CD4503N	DIP-16	Tri-state hex buffer (74C367) 80C97	.28	.25	.22

\* 10 pcs. in 4000 series IC cabinet kit, below \*\* 20 pcs. in 4000 series IC cabinet kit, below

♣ Refurbished = Backed by Jameco

## 4000 Series CMOS IC Kit

Includes:

20-drawer component cabinet (319599CH),  
20 clear plastic drawers (319601CH),  
20 clear dividers (319610CH), pg 244 and  
30 adhesive labels for drawers to identify parts in kit

10 each: CD4015, CD4016, CD4017, CD4020, CD4023, CD4024,  
CD4027, CD4040, CD4046, CD4050, CD4051, CD4069,  
CD4070, CD4071, CD4081, CD4093, CD4511, CD4538, CD4543, CD4584  
84970CH  
20 each: CD4001, CD4011, CD4013, CD4049, CD4056

Part No.	Description	Wt. (lbs.)	1	10
84970CH	300 pcs. 4000 series CMOS IC kit	6.1	\$79.95	\$71.95
130403CH	Refill for 84970CH (300 pcs.)	1.4	58.95	52.95



SAVE \$28

## 4000 Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
13485CH	CD4510N	DIP-16	BCD up/down counter	\$ .39	\$ .30	\$ .23
13493CH	CD4511N*	DIP-16	BCD to 7-seg. latch/decoder/driver	.69	.59	.49
197421CH	CD4511M	SOIC-16	BCD to 7-seg. latch/decoder/driver	\$ .44	.39	.33
13514CH	CD4512N	DIP-16	8-channel data selector	.45	.365	.277
13522CH	CD4514N	DIP-24	4-bit latch/4-16 line decoder	.94	.79	.64
13549CH	CD4516N	DIP-16	Binary up/down counter	.50	.40	.30
13565CH	CD4518N	DIP-16	Dual BCD up counter	.26	.25	.23
13581CH	CD4520N	DIP-16	Dual binary up counter	.33	.28	.21
13590CH	CD4522N	DIP-16	Program. BCD divide-by-N counter	\$ .89	.30	.26
13602CH	CD4526N	DIP-16	Divide-by-N counter (binary)	.52	.39	.31
13611CH	CD4528N	DIP-16	Dual monostable multivibrator	.86	.73	.55
13653CH	CD4538N*	DIP-16	Dual precision monostable multivibrator	.58	.49	.34
197430CH	CD4538M	SOIC-16	Dual precision monostable multivibrator	\$ .57	.43	.329
13688CH	CD4541N	DIP-14	Oscillator/programmable timer	\$ .25	.23	.20
13696CH	CD4543N*	DIP-16	BCD to 7-segment decoder (LCD)	.59	.45	.29
13709CH	CD4553N	DIP-16	3-digit BCD counter	2.95	2.51	1.88
354600CH	CD4555N	DIP-16	Dual 1-4 decoder/demultiplexer	.31	.274	.227
354618CH	CD4556	DIP-16	Dual 1-4 decoder/demultiplexer	.46	.349	.265
13768CH	CD4584N*	DIP-14	Hex Schmitt trigger (74C14) 40106	.39	.35	.29
197448CH	CD4584M	SOIC-14	Hex Schmitt trigger (74C14) 40106	\$ .30	.28	.24
44257CH	CD40106N	DIP-14	Hex inverter Schmitt trigger (74C14)	.49	.465	.288
354589CH	CD40109	DIP-16	Quad L to H volt. level shifter	.51	.415	.378

\* 10 pcs. in 4000 series IC cabinet kit, below

## 7400 Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
48979CH	7400N**	DIP-14	Quad 2-input NAND gate	\$ .65	\$ .55	\$ .45
49007CH	7401N	DIP-14	Quad 2-input NAND gate (O.C.)	.59	.57	.54
49015CH	7402N*	DIP-14	Quad 2-input NOR gate	.68	.56	.45
49040CH	7404N**	DIP-14	Hex inverter	.59	.49	.45
49074CH	7405N*	DIP-14	Hex inverter (O.C.)	.69	.54	.38
49091CH	7406N**	DIP-14	Hex inverter buffer/driver (O.C.)	.52	.45	.40
49120CH	7407N**	DIP-14	Hex buffer/driver (O.C.)	.40	.37	.32
49146CH	7408N*	DIP-14	Quad 2-input AND gate	.82	.63	.48
49189CH	7410N*	DIP-14	Triple 3-input NAND gate	.40	.36	.25
295777CH	7411N	DIP-16	Triple 3-input AND gate	.99	.89	.80
49402CH	7413N	DIP-14	Dual 4-input NAND gate Schmitt trigger	1.25	1.12	1.01
49437CH	7414N*	DIP-14	Hex inverter Schmitt trigger	.59	.54	.50
49630CH	7416N*	DIP-14	Hex inverter buffer/driver (O.C.)	.52	.44	.33
49728CH	7417N*	DIP-14	Hex buffer/driver (O.C. hi-voltage)	.91	.77	.58
50008CH	7420N*	DIP-14	Dual 4-input NAND gate	.56	.52	.45
50083CH	7425N	DIP-14	Dual 4-input NOR gate with strobe	.78	.75	.72
50139CH	7427N	DIP-14	Triple 3-input NOR gate	.68	.58	.43
50198CH	7428N	DIP-14	Quad 2-input NOR buffer	.76	.65	.48
50235CH	7432N*	DIP-14	Quad 2-input OR gate	.74	.64	.56
50315CH	7438N*	DIP-14	Quad 2-input NAND buffer (O.C.)	.70	.60	.46
50358CH	7440N	DIP-14	Dual 4-input NAND buffer	.55	.47	.35
50374CH	7442N	DIP-16	BCD-to-decimal decoder	1.29	1.02	.84
50403CH	7445N	DIP-16	BCD-to-decimal decoder/driver	1.19	1.05	.91
50411CH	7446N	DIP-16	BCD-to-7 segment decoder/driver	2.09	1.95	1.89
50420CH	7447N*	DIP-16	BCD-to-7 segment decoder/driver	1.49	1.29	.99
50518CH	7470N*	DIP-14	Edge-triggered JK flip-flop	.81	.69	.52
50526CH	7472N	DIP-14	AND gated JK master/slave flip-flop	2.25	1.91	1.43
50534CH	7473N	DIP-14	Dual JK flip-flop with clear	.99	.86	.68
50551CH	7474N**	DIP-14	Dual D flip-flop	.59	.49	.39
50577CH	7475N	DIP-16	4-bit bi-stable latch	2.95	2.75	2.49
50593CH	7476N	DIP-16	Dual JK flip-flop with preset and clear	1.49	1.41	1.37
50631CH	7483N	DIP-16	4-bit binary full adder	1.05	.91	.79
50657CH	7485N*	DIP-16	4-bit magnitude comparator	.93	.76	.56
50227CH	7430N*	DIP-14	8-input NAND gate	.56	.48	.36
50665CH	7486N	DIP-14	Quad EXCLUSIVE-OR gate	1.05	.85	.64
50681CH	7489N	DIP-16	64-bit RAM P 50ns	3.49	3.19	2.99
50690CH	7490N	DIP-14	Decade counter	1.49	1.27	.95
50737CH	7492N	DIP-14	Divide-by-12 counter	1.49	1.29	.95
50745CH	7493N	DIP-14	4-bit binary counter	1.49	1.34	1.19
50770CH	7495N*	DIP-14	4-bit parallel-access shift reg. (K155N)	.91	.78	.52

\* 10 pcs. in 7400 series IC cabinet kit, pg 31 \*\* 20 pcs. in 7400 series IC cabinet kit, pg 31

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 7400 Series (Continued)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
50796CH	7497N	DIP-16	Synch. 6-bit binary rate multipliers	\$2.49	\$2.11	\$1.55
49234CH	74107N*	DIP-14	Dual JK flip-flop with clear	.45	.38	.28
49293CH	74116N	DIP-24	Dual 4-bit latches with clear	1.95	1.65	1.25
49322CH	74121N	DIP-14	Monostable multivibrator	1.15	1.05	.91
49349CH	74122N	DIP-14	Retriggerable mono. multivibrator w/ clear	1.02	1.00	.98
49357CH	74123N*	DIP-16	Dual retriggerable mono. multivibrator	1.15	1.09	.90
49373CH	74125N	DIP-14	Quad bus buffer tri-state (DM8093N)	1.11	.99	.86
49411CH	74132N*	DIP-14	Quad 2-input NAND Schmitt trigger	1.29	.99	.70
49496CH	74148N	DIP-16	8 to 3 line octal priority encoder	1.24	1.05	.79
49509CH	74150N	DIP-24	16 to 1 line multiplexer	1.95	1.75	1.55
49525CH	74151N*	DIP-16	8-input multiplexer	.65	.55	.41
49550CH	74153N*	DIP-16	Dual 4/1 data selector/multiplexer	.76	.56	.39
49568CH	74154N	DIP-24	4 to 16 line decoder/demultiplexer	2.25	1.95	1.75
49605CH	74157N*	DIP-16	Quad 2/1 data selector	.88	.72	.51
49648CH	74160N*	DIP-16	Decade counter with asynch. clear	.45	.40	.36
49664CH	74161N	DIP-16	Synchronous 4-bit counter	.70	.63	.50
49672CH	74163N	DIP-16	Synchronous 4-bit counter	.81	.69	.52
49681CH	74164N	DIP-14	8-bit serial shift register	.85	.72	.54
49699CH	74165N	DIP-16	8-bit serial shift register, parallel load	.99	.84	.63
49779CH	74174N*	DIP-16	Hex D-type flip-flop with clear	.99	.84	.63
49795CH	74175N*	DIP-16	Quad D-type flip-flop with clear	.85	.72	.54
49832CH	74180N	DIP-14	9-bit odd/even parity generator/checker	2.89	2.46	1.84
49841CH	74181N	DIP-24	Arithmetic logic unit/function generator	3.29	2.96	2.66
49883CH	74189N	DIP-16	64-bit RAM tri-state (DM8599N)	3.39	2.89	2.17
49904CH	74191N	DIP-16	Binary up/down counter	1.85	1.57	1.18
49912CH	74192N	DIP-16	Decade up/down counter with clear	3.69	3.39	3.19
49939CH	74193N	DIP-16	Binary up/down counter with clear	1.85	1.59	1.45
49955CH	74194N	DIP-16	4-bit bi-directional shift register	1.59	1.35	1.01
49963CH	74195N	DIP-16	4-bit parallel-access shift register	1.65	1.40	1.05
50171CH	74279N*	DIP-16	Quad set-reset latch	1.79	1.52	1.14
88225CH	SDL0001A	—	Texas Instruments TTL Data Book	34.95	31.49	29.95

\* 10 pcs. in 7400 series IC cabinet kit, below

## 7400 Series IC Kit

Includes:

- 20-drawer component cabinet (319599CH),
- 20 clear plastic drawers (319601CH),
- 20 clear dividers (319610CH), pg 244 and
- 30 adhesive labels for drawers to identify parts in kit

10 each: 7402, 7405, 7408, 7410, 7414, 7416, 7417, 7420, 7430, 7432, 7438, 7447, 7470, 7485, 7495, 74107, 74123, 74132, 74151, 74153, 74157, 74160, 74174, 74175, 74279

20 each: 7400, 7404, 7406, 7407, 7474

Part No.	Description	Wt. (lbs.)	1	10
84953CH	350 pcs. 7400 IC kit	6.2	\$149.95	\$134.95

## 74C Series

Part No.	Cross Ref.	Pkg.	Description	1	10	100
44222CH	74C00N	DIP-14	Quad 2-input NAND gate	\$1.15	\$ .98	\$ .73
44231CH	74C04N	DIP-14	Hex inverter (CD4069)	1.05	.89	.67
44257CH	74C14N	DIP-14	Hex inverter Schmitt trigger (CD40106)	.49	.465	.288
44441CH	74C74N	DIP-14	Dual D flip-flop	1.69	1.44	1.08
44361CH	74C221N	DIP-16	Dual monostable multivibrator	3.69	3.19	2.50
13469CH	74C367N	DIP-16	Hex buffer tri-state (80C97/CD4503)	.28	.25	.22
44396CH	74C373N	DIP-20	Octal D-type flip-flop with clear tri-state	3.85	3.11	2.44
44409CH	74C374N	DIP-20	Octal D-type flip-flop tri-st. (INS82C06N)	2.15	1.83	1.37
44564CH	74C922N	DIP-18	16-key keyboard encoder (INS8245N)	7.05	6.79	6.19
44572CH	74C923N	DIP-20	20-key keyboard encoder (INS8246N)	5.99	5.09	3.86
44581CH	74C925N	DIP-16	4-digit CTR w/ MUX D segment driver	14.15	12.05	9.05
44599CH	74C926N	DIP-18	4-digit CTR w/ MUX D segment driver	10.49	9.49	8.59

## 74S Series

Part No.	Cross Ref.	Pkg.	Description	1	10	100
48531CH	74S188N	DIP-16	256-bit (32 x 8) PROM O.C. (27S18)	\$4.39	\$3.95	\$3.45
48557CH	74S189N	DIP-16	64-bit (16 x 4) RAM tri-state (27S03)	3.99	3.90	3.86
48696CH	74S287N	DIP-16	1k-bit (256 x 4) PROM tri-state (TBP24S10)	8.95	7.85	7.09
48717CH	74S288N	DIP-16	256-bit (32 x 8) PROM tri-st. (TBP18S030N)	7.39	6.39	5.49

Color Code Legend			
New	Sale	Lower\$	QtySave

## 74S Series (Continued)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
48805CH	74S387N	DIP-16	1k-bit (256 x 4) PROM O.C. (TBP24SA10N)	\$3.09	\$2.79	\$2.55
52513CH	74S428N	DIP-28	System contr./bus driver (8228)	3.69	3.19	2.36
48864CH	74S472N	DIP-20	4k-bit (512 x 8) PROM tri-st. (TBP28S42N)	12.95	11.65	10.49
48910CH	74S571N	DIP-16	2k-bit (512 x 4) PROM tri-st. (AM27S13)	5.69	5.45	4.95
48928CH	74S573N	DIP-18	4k-bit (1024 x 4) PROM tri-st. (53S441J)	3.39	2.89	2.59

## 9000 Series

Part No.	Cross Ref.	Pkg.	Description	1	10	100
53663CH	9368	DIP-16	7 segment driver/latch	\$4.49	\$3.95	\$3.55
10567CH	AM9513APC	DIP-40	System timing counter	39.95	35.95	31.85

♣ Pull = Extra Savings

## Dallas Semiconductor

Part No.	Product No.	Pkg.	Description	1	10	100
114198CH	DS1210	DIP-8	Nonvolatile controller chip	\$4.19	\$3.37	\$2.27
114219CH	DS1213C	DIP-28	SmartSocket 64K/256k	19.99	15.55	12.25
133410CH	DS1216C	DIP-28	Smartwatch/RAM 64K/256k	31.89	27.69	19.99
114331CH	DS1232	DIP-8	Micromonitor chip	2.05	1.56	1.21
133444CH	DS1286♣	DIP-28	Watchdog timekeeper (50-Byte RAM)	23.95	18.25	12.70
76646CH	DS1287♣	DIP-24	Real time clock with RAM (MC146818A)	7.25	6.15	4.59
176778CH	DS1302	DIP-8	Trickle charge time keeping IC	2.75	2.10	1.28
114374CH	DS1387♣	DIP-24	RAMified real time clock 4k x 8	8.59	7.99	7.25
114382CH	DS1620	DIP-8	Digital thermometer and thermostat	6.29	5.05	3.49
245500CH	DS1705ESA	SOIC-8	3.3V and 5V micromonitor	1.99	1.48	1.09
282749CH	DS1708ESA	SOIC-8	3.3V and 5V micromonitor	2.05	1.55	1.19
133452CH	DS12887♣	DIP-24	Real time clock chip	8.15	6.25	4.15
299997CH	DS12887A	DIP-24	Real time clock chip	8.15	6.22	4.15
114403CH	DS80C320-MCG	DIP-40	High speed micro 25MHz	13.15	10.42	6.25

♣ Pull = Extra Savings

## MPU Supervisory

Package (see pg 32)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
106219CH	✦	MAX690CPA	DIP-8	Microprocessor watchdog/battery	\$5.99	\$5.05	\$3.13
106227CH	✦	MAX691CPE	DIP-16	Microprocessor watchdog/battery	6.25	4.21	3.16
288403CH	✦	MAX693CPE	DIP-16	Microprocessor watchdog/battery	6.49	3.86	3.22
297684CH	MAX	MAX694CPA	DIP-8	Microprocessor supervisory circuit	6.59	3.86	3.26
297748CH	MAX	MAX695CPE	DIP-16	Low cost MPU supervisory circuit	7.15	5.82	5.24
312418CH	MAX	MAX699CPA	DIP-8	Low-cost power on reset & watchdog	4.15	3.46	3.28
243627CH	✦	MAX705CPA	DIP-8	MPU supervisory circuit	\$4.95	4.15	3.46
243635CH	✦	MAX705CSA	SOIC-8	Low cost MPU supervisory circuit	4.59	4.10	2.45
297705CH	MAX	MAX706CPA	DIP-8	Low cost MPU supervisory circuit	4.99	3.99	3.59
251774CH	MAX	MAX707CPA	DIP-8	Low cost MPU supervisory circuit	4.15	3.48	2.20
251758CH	MAX	MAX707CSA	SOIC-8	Low cost MPU supervisory circuit	4.29	3.59	2.50
298020CH	✦	MAX734CPA	DIP-8	12V, 120mA flash memory prog.	3.69	3.49	3.32
298046CH	✦	MAX734CSA	SOIC-8	12V, 120mA flash memory prog.	2.55	2.21	2.07
266861CH	✦	MAX809T	SOT-23	3-pin microprocessor reset circuit	.50	.38	.29
245391CH	✦	MAX810S	SOT-23	3-pin microprocessor reset circuit	.80	.69	.66
245497CH	MAX	MAX813LCSA	SOIC-8	Low cost MPU supervisory circuit	2.99	2.55	1.77
106260CH	✦	MAX1232CPA	DIP-8	Microprocessor monitor	3.09	2.45	1.67
282677CH	✦	DS1233-5	SOT-223	5V econoreset, CPU supervisory	1.25	.91	.74
290221CH	✦	DS1233D-5	TO-92	5V econoreset, CPU supervisory	1.25	1.05	.99
282651CH	✦	DS1233M-5	TO-92	5V econoreset, CPU supervisory	1.15	1.00	.90
282685CH	✦	DS1233-10	TO-92/4	5V econoreset, CPU supervisory	1.25	1.10	.99
313971CH	ANA	AP1701DW	SOT-23	3-pin microprocessor reset circuit	.72	.545	.40
313939CH	ANA	AP1702DW	SOT-23	3-pin microprocessor reset circuit	.54	.325	.305
310316CH	MAX	DS1708SESA	SOIC-8	3.3V micromonitor	1.85	1.47	1.38
298089CH	MAX	DS1811-5	TO-92	5V econoreset w/ open drain output	.99	.69	.60
298118CH	MAX	DS1811-10	TO-92	5V econoreset w/ open drain output	1.01	.68	.63
298100CH	MAX	DS1811-15	TO-92	5V econoreset w/ open drain output	.99	.75	.73
309930CH	NSC	LM3722EM5-4.63	SOT-23	5-pin microprocessor reset circuit	2.55	1.90	1.60
309913CH	NSC	LM3722IM5-3.08	SOT-23	5-pin microprocessor reset circuit	2.15	1.61	1.34

## Power Management

Package (see pg 32)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	25
291670CH	✦	MAX712CPE	DIP-16	NICD/NIMH battery fast chrg cntrlr	\$6.99	\$5.36
312979CH	✦	NCP1800DM2R2	SOIC-8	Li-Ion battery charger	1.59	1.47



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

TO-3	TO-5/TO-52	TO-92	TO-220	TO-252	TO-263	DD	DIP	SOIC & SOP	SOT-23	SOT-223	MW	PLCC

## Manufacturer Cross Reference Table

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Analog Devices	ADI	Linear Technology	LTC	Microchip	MCH	On Semi	ON	Texas Instruments	TI
Anachip	ANA	Maxim Corporation	MAX	National Semiconductor	NSC	ST Micro	ST	Jameco Value Offering	+

## Power Management (Continued)

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	25
312821CH	+	BQ2003S	SOIC-16	Fast Charge IC .....	\$4.49	\$3.65
312848CH	TI	BQ2004PN	DIP-16	NIMH/NICd switchmode charge mgmt w/ neg dV .....	4.49	3.79
312830CH	TI	BQ2004SN	SOIC-16	NIMH/NICd switchmode charge mgmt w/ neg dV .....	4.49	3.79
312901CH	TI	BQ2010SN-D107	SOIC-16	Gas Gauge IC .....	6.99	6.47
312899CH	TI	BQ2013HSN-A514	SOIC-16	Gas Gauge IC .....	6.75	6.25
312856CH	TI	BQ2014SN-D120	SOIC-16	NIMH/NICd gas gauge w/ 1-wire (DQ) I/F .....	6.99	6.47
312928CH	TI	BQ2018TS-E1	TSSOP-8	Rechargeable battery power monitor .....	3.89	3.29
312936CH	TI	BQ2019PW	TSSOP-8	Rechargeable battery power monitor .....	3.99	3.35
312881CH	TI	BQ2040SN-D111	SOIC-16	Li-Ion/NIMH/NICd gas gauge w/ smbus .....	6.99	6.47
312961CH	+	UC3906N	DIP-16	Linear lead acid battery charger .....	4.99	4.49
312944CH	TI	BQ24004PWP	TSSOP-20	Li-Ion battery charger .....	3.69	3.10
312952CH	+	TPS65010RGZR	QFN-48	Li-Ion battery charger w/ USB + 12C .....	7.05	6.67
241808CH	+	ICL7665SCPA	DIP-8	2-16V voltage detector .....	2.45	2.20
241816CH	+	ICL7673CPA	DIP-8	Auto battery backup switch, 2.5V to 15V .....	1.05	.93

## RS-232 Drivers/Receivers

SSOP

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
142535CH	+	HIN202CP	DIP-16	+5V RS-232 trans. requires 0.1µF caps .....	\$2.65	\$2.10	\$1.36
244232CH	+	MAX202CSE	SOIC-16	+5V RS-232 trans. w/ 0.1µF ext. caps .....	1.55	1.25	1.15
244241CH	+	MAX202EPE	DIP-16	+5V RS-232 transceivers .....	1.13	.99	.88
244259CH	+	MAX202ESE	SOIC-16	+5V RS-232 trans. w/ 0.1µF ext. caps ..	1.13	.99	.88
299794CH	MAX	MAX207CWAJ	SOIC-24	RS-232 transceivers w/ 0.1µF ext. cap .....	3.65	2.77	2.00
282790CH	+	MAX211CAI	SSOP-28	+5V RS-232 trans. w/ 0.1µF ext. caps ..	6.59	5.04	3.46
312215CH	+	MAX211ECAI	SSOP-28	+5V RS-232 trans. w/ 0.1µF ESD .....	8.05	5.25	4.14
291215CH	+	MAX222CPN	DIP-18	+5V multichannel RS-232 drivers/recvr ..	3.49	3.39	3.18
291303CH	+	MAX222CWN	SOIC-18	+5V multichannel RS-232 drivers/recvr ..	3.89	3.09	2.08
24811CH	+	MAX232CPE*	DIP-16	Dual RS-232 receiver/transmitter .....	2.19	1.85	1.45
318959CH	MAX	MAX232CPE	DIP-16	Dual RS-232 receiver/transmitter .....	2.89	1.77	1.49
106147CH	+	MAX232CWE	SOIC-16	+5V dual RS-232 trans./receiver .....	2.75	2.10	1.36
256401CH	+	MAX232DWR	SOIC-16	Dual EIA-232 driver/receiver .....	.76	.66	.63
106155CH	+	MAX232EPE	DIP-16	+5V dual RS-232 (-40°C to +85°C) .....	3.29	2.52	1.63
106163CH	+	MAX232CPP	DIP-20	+5V multichannel RS-232 driver/rec. ..	6.19	4.99	4.66
106171CH	+	MAX235CPG	DIP-24	+5V five RS-232 driver/receiver .....	13.39	10.51	6.75
106180CH	+	MAX238CNG	DIP-24	+5V quad RS-232 driver/receiver .....	6.29	4.79	3.28
276883CH	+	MAX323CDWR	SOIC-20	True 3V-5.5V RS-232 trans. w/ autoshtdwn ..	1.69	1.61	1.45
193691CH	+	DS1488D	SOIC-14	Quad line driver RS-232 (75188D) .....	.41	.33	.25
23157CH	+	DS1488N*	DIP-14	Quad line driver RS-232 (75188N) .....	.27	.23	.17
16361CH	+	DS14C88N	DIP-14	Quad CMOS line driver RS-232 .....	.57	.50	.41
193703CH	+	DS1489D	SOIC-14	Quad line receiver RS-232 (75189D) ..	.41	.33	.25
23181CH	+	DS1489N*	DIP-14	Quad line receiver RS-232 (75189N) ..	.23	.215	.20
16379CH	+	DS14C89N	DIP-14	Quad CMOS line receiver RS-232 .....	1.00	.73	.55
252128CH	+	MAX3221CAE	SSOP-16	RS-232 transceiver w/ auto shutdown .....	2.29	1.99	1.65
277042CH	+	MAX3221CAE	SSOP-16	True 3V-5.5V RS-232 trans. w/ autoshtdwn ..	2.65	2.27	2.13
299760CH	+	MAX3222CAP	SSOP-20	True RS-232 low power trans. ....	3.35	2.69	1.83
276963CH	+	MAX3222CDWR	SSOP-20	3V-5.5V, low pwr RS-232 trans. ....	2.09	1.94	1.74
276859CH	+	MAX3232CDR	SOIC-16	3V-5.5V, true RS-232 transceiver .....	1.69	1.61	1.45
276867CH	+	MAX3232CSE	SOIC-16	3V-5.5V, true RS-232 transceiver .....	3.69	2.94	1.88
276795CH	+	MAX3238CDBR	SSOP-28	3V5.5V, true RS-232 w/ autoshtdwn ..	1.85	1.73	1.55
276824CH	+	MAX3238IDBR	SSOP-28	3V5.5V, true RS-232 w/ autoshtdwn ..	2.19	1.96	1.77
276761CH	+	MAX3243CDWR	SOIC-28	True 3V-5.5V RS-232 trans. w/ autoshtdwn ..	1.37	1.27	1.14
276779CH	+	MAX3243IDWR	SOIC-28	True 3V-5.5V RS-232 trans. w/ autoshtdwn ..	1.69	1.61	1.45
299911CH	+	DS14C232CM	SOIC-16	Low pwr TIA/EIA 232 dual driver/recvr ...	1.05	.94	.86

\*10 pcs. in Linear series IC cabinet kit, pg 37

## RS-232 Drivers/Receivers (Con't)

SSOP

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
235301CH	+	DS14C232CN	DIP-16	Low pwr +5V TIA/EIA 232 dual drv/recvr ..	\$1.09	\$ .91	\$ .86
277982CH	+	SN75185DW	SOIC-20	Multiple RS-232 drivers/receivers .....	.79	.60	.45
256081CH	+	SN75185N	DIP-20	Multiple RS-232 drivers/receivers .....	.69	.60	.50
245366CH	+	SN75C188D	SOIC-14	Quad low power line driver .....	.56	.42	.32
23181CH	+	SN75189N	DIP-14	Quad line rec. RS-232 (DS1489N) .....	.23	.215	.20
245374CH	+	SN75C189D	SOIC-14	Quad low power line receiver .....	.84	.71	.56
278205CH	+	TL145406N	DIP-16	Triple RS-232 drivers/receivers .....	.97	.88	.73
25099CH	+	MC145406P	DIP-16	RS232-CV.28 drv./rec. (CMOS) (75C1406N) ..	1.95	1.75	1.59

## RS-422/485 Receivers

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
299815CH	LTC	LTC485CS8	SOIC-8	RS-485 low power interface trans. ....	\$2.15	\$1.84	\$1.73
299807CH	LTC	LTC485CN8	DIP-8	RS-485 low power interface trans. ....	2.09	1.39	1.15
276605CH	MAX	MAX490CSA	SOIC-8	Low pwr, slew-rate limited RS-485/422 ...	2.55	1.95	1.25
276576CH	MAX	MAX490CPA	DIP-8	Low pwr, slew-rate limited RS-485/422 ...	2.55	2.05	1.83
276550CH	MAX	MAX491CPD	DIP-14	Low pwr, slew-rate limited RS-485/422 ...	2.55	2.05	1.85
311837CH	MAX	MAX1480BEPI	DIP-28	Complete iso. RS485-422 data interface ..	28.75	22.29	21.18
244179CH	ADI	ADM1485JN	DIP-8	RS-485 differential bus transceivers ..	2.05	1.83	1.65
244187CH	ADI	ADM1485JR	SOIC-8	RS-485 differential bus transceivers ..	1.75	1.48	1.25
235310CH	+	DS1487N	DIP-8	Low pwr RS-485 1/4 unit load recvr. ....	1.75	1.49	1.12
244195CH	+	MAX1487CPA	DIP-8	RS-485/RS-422 low-power transceivers ..	2.39	1.99	1.31
244208CH	+	MAX1487CSA	SOIC-8	RS-485/RS-422 low-power transceivers ..	2.35	1.99	1.53
39571CH	+	AM26LS30	DIP-16	Dual diff RS422 party line Qd RS423 line drv. ..	2.39	2.05	1.76
39589CH	+	AM26LS31CN	DIP-16	Quad diff line driver .....	.61	.54	.43
243555CH	+	AM26LV31CD	SOP-16	RS-422 quad differential line trans. ....	<del>\$1.15</del> .72	.55	.41
39600CH	+	AM26LV32CN	DIP-16	Quad diff line receiver RS422/423 .....	.64	.57	.429
272217CH	+	DS26LS32ACN	DIP-16	Quad diff line receiver .....	.66	.50	.38
242051CH	+	AM26LV32CD	SOP-16	RS-422 quad differential line receivers ..	1.05	.92	.55
252427CH	+	MC3486D	SOIC-16	Quad EIA-422/423 line rec. w/ 3-st. outputs ..	.66	.50	.38
25232CH	+	MC3486P	DIP-16	Quad EIA-422/423 line rec. w/ 3-st. outputs ..	.66	.56	.38
252961CH	+	MC3487D	SOIC-16	Quad EIA-422 differential line driver .....	.65	.50	.38
25259CH	+	MC3487P	DIP-16	Quad EIA-422 line driver w/ 3-state outputs ..	.66	.56	.38
298142CH	NSC	DS3691M	SOIC-16	RS-422/423 line drivers w/ 3-state outputs ..	1.99	1.48	1.11
298134CH	NSC	DS3691N	DIP-16	RS-422/423 line drivers w/ 3-state outputs ..	1.10	.99	.83
144039CH	NSC	DS3695N	DIP-8	Multipoint RS-485/422 trans. w/ 3-st. outputs ..	1.75	1.32	.99
235336CH	NSC	DS3696N	DIP-8	Multipoint RS-485/RS-422 trans./repeaters ...	2.29	1.71	1.28
299671CH	NSC	DS8921AN	DIP-8	RS-422 differential line driver/receiver pair ...	1.59	.98	.86
298169CH	NSC	DS8921M	SOIC-8	RS-422 differential line driver/receiver pair ...	1.45	1.10	.83
299701CH	NSC	DS8922AM	SOIC-16	RS-422 dual differential line driver/receiver pair ..	1.59	1.19	.90
299719CH	NSC	DS8922AN	DIP-16	RS-422 dual differential line driver/receiver pair ..	1.59	1.19	.89
299727CH	NSC	DS8923AM	SOIC-16	RS-422 dual differential line driver/receiver pair ..	1.65	1.22	.92
309753CH	NSC	DS8923AN	DIP-16	Dual RS-422 diff. line driver/rec. pairs ..	1.65	1.25	.93
235344CH	NSC	DS36C278N	DIP-8	Low pwr multipoint EIA RS-485 transceiver ..	2.69	2.25	2.15
241980CH	TI	SN75LBC172N	DIP-16	RS-485 differential line drivers .....	4.39	3.81	2.75
241998CH	TI	SN75LBC173N	DIP-16	RS-422/RS-423/RS-485 diff. line rec. ....	3.05	2.62	2.46
50948CH	+	SN75174N	DIP-16	Quad diff. RS-422 line driver w/ 3-st. out ...	.76	.74	.63
245340CH	+	SN75175D	SOIC-16	Quad differential line receivers .....	.71	.60	.50
50956CH	+	SN75175N	DIP-16	Quad diff. EIA 422A/423A line rec. w/3-st. out ..	.72	.56	.45
243707CH	TI	SN75LBC175D	SOIC-16	Quadruple low power diff. line receiver ...	1.89	1.55	1.17
243715CH	TI	SN75LBC175N	DIP-16	RS-422/RS-423/RS-485 diff. line rec. ....	2.65	2.47	2.32
50964CH	+	SN75176BN	DIP-8	Differential bus transceiver .....	.65	.55	.45
251053CH	TI	SN75LBC176AD	SOIC-8	Differential bus transceiver .....	3.09	2.71	1.99
244136CH	TI	SN75LBC176AP	DIP-8	RS-485 differential bus transceivers ..	2.95	2.79	1.99
251846CH	TI	SN75LBC176D	SOIC-8	Differential bus transceiver RS485 .....	1.59	1.31	.86

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## RS-422/485 Receivers (Continued)

Package (see pg 32)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
243723CH	TI	SN75LBC176P	DIP-8	RS-485 differential bus transceivers	\$2.15	\$1.99	\$1.75
235387CH	NSC	DS96172CN	DIP-16	RS-485/RS-422 quad diff. line drivers	3.59	3.26	2.96
235361CH	NSC	DS96173CN	DIP-16	RS-485/RS-422 quad diff. line recvr	2.09	1.89	1.71
235395CH	NSC	DS96174CN	DIP-16	RS-485/RS-422 quad diff. line drivers	2.45	2.12	1.45
235379CH	NSC	DS96175CN	DIP-16	RS-485/RS-422 quad diff. line rec.	1.99	1.52	1.38
235408CH	NSC	DS96176CN	DIP-8	RS-485/RS-422 diff. bus transceivers	1.79	1.59	1.19

## Interface Series



Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
310498CH	TI	XTR101AP	DIP-14	Low-drift precision 2-wire trans.	\$13.19	\$12.00	\$10.76
310501CH	TI	XTR101AU	SOIC-16	Low-drift precision 2-wire trans.	16.25	15.43	14.66
312021CH	TI	XTR105AP	DIP-14	4-20mA current transmitter	7.29	7.19	6.91
310703CH	ST	L294	MW-11	Switch mode solenoid driver	3.05	2.63	2.35
310738CH	ST	L295	MW-15	Dual switch mode solenoid driver	6.19	5.75	5.49
116206CH	+	TC426CPA	DIP-8	Dual 1.5A hi speed pwr MOSFET driver	1.10	.96	.94
245593CH	+	TC426EOA	SOIC-8	Dual 1.5A hi speed pwr MOSFET driver	1.15	.94	.89
242077CH	+	TC428CPA	DIP-8	Dual MOSFET 1.5A driver	\$4.35	.95	.86
242085CH	+	MAX626CPA	DIP-8	Dual 1.5A-peak low-side MOSFET driver	1.14	.93	.90
242093CH	+	MAX627CPA	DIP-8	Dual MOSFET driver	1.10	.94	.70
246692CH	+	LT1030N	DIP-14	Quad low power line driver	1.11	.93	.76
310754CH	+	TC1426COA	SOIC-8	1.2A dual high-speed MOSFET drivers	.68	.66	.64
310771CH	+	TC1426CPA	DIP-8	1.2A dual high-speed MOSFET drivers	.88	.68	.63
12239CH	+	CA3161E	DIP-16	BCD to 7-seg. decoder driver	2.05	1.78	1.67
310480CH	ON	MC33152D	SOIC-8	Dual high-speed MOSFET drivers	1.15	1.07	.85
310439CH	ON	MC33152P	DIP-8	Dual high-speed MOSFET drivers	1.15	1.07	.85
25216CH	NSC	MC3479P	DIP-16	Biphase stepper motor driver	3.99	3.39	2.69
24230CH	NSC	LM3914N	DIP-18	Bar-graph display driver	2.55	2.15	1.99
300003CH	NSC	LM3914N-1	DIP-18	Dot/bar display driver	1.65	1.54	1.38
246625CH	NSC	LM3914V	PLCC-20	Dot/bar display driver	2.59	2.18	1.68
24256CH	NSC	LM3915N	DIP-18	3 dB steps bar-graph disp. driver	2.49	1.99	1.55
24272CH	NSC	LM3916N	DIP-18	VU meter display driver	2.19	1.65	1.22
291320CH	+	MIC4420CM	SOIC-8	6A-peak low side MOSFET driver	1.05	1.03	.90
291434CH	+	MIC4420CN	DIP-8	6A-peak low side MOSFET driver	1.29	1.15	1.05
251029CH	+	TC4420COA	SOIC-8	6A high speed MOSFET drivers	1.45	1.25	1.18
310965CH	+	TC4422CPA	DIP-8	9A high-speed MOSFET drivers	2.49	1.62	1.52
310800CH	+	TC4422EPA	DIP-8	9A high-speed MOSFET drv., extended temp.	2.45	1.54	1.44
291590CH	+	MIC4427CM	SOIC-8	Dual 1.5A-peak low side MOSFET drv	1.15	1.05	.94
312207CH	+	MIC4429CM	SOIC-8	6A-peak low-side MOSFET driver	.99	.87	.82
291645CH	+	MIC4429CN	DIP-8	6A-peak low side MOSFET driver	1.45	1.28	1.21
243379CH	+	MM5453N	DIP-40	Liquid crystal display driver	3.65	2.80	2.16
314691CH	+	ICL7136CPL	DIP-40	3 1/2 digit LCD LP display driver	4.89	4.65	4.42
313453CH	+	ICM7211AMPL	DIP-40	4-digit LCD display driver	2.89	2.62	2.39
313437CH	+	ICM7218AIJ	DIP-28	8-digit LED µP multi display decoder drv	4.95	3.86	3.45
313445CH	+	ICM7218BIJ	DIP-28	8-digit LED µP multi display decoder drv	7.39	7.04	6.68
312160CH	MAX	MAX7219CNG	DIP-24	Serially interfaced 8-digit LED display drv	9.09	7.90	7.50
312178CH	MAX	MAX7219CWG	SO-24	Serially interfaced 8-digit LED display drv	9.09	7.90	7.50
313322CH	+	ICM7228AIP	DIP-28	8-digit µP compatible LED display decoder drv	9.45	3.71	3.15
241875CH	+	FAN8082	DIP-8	Bi-directional, 18V DC motor driver	.70	.52	.47
241867CH	+	FAN8200	DIP-14	Bi-directional, 2-ch, 9V stepper motor drv	.79	.68	.64
213170CH	+	UA9636A	DIP-8	Dual differential line receiver (MC3488A)	\$5.39	.35	.32
256727CH	TI	SN65LVDS31D	SOIC-16	High speed differential line driver	2.95	2.36	1.86
256719CH	TI	SN65LVDS048AD	SOIC-16	LVDS quad differential line receiver	3.15	2.72	2.55
272188CH	TI	SN65LVDS050D	SOIC-16	High speed diff. line driver/receiver	3.99	3.48	3.13
241824CH	+	MC14489BP	DIP-20	5V, LED display/lamp driver	4.29	3.75	3.52
287831CH	+	MC14489BDW	SOG-20	5V LED driver, 5 digit / 25 lamps	3.39	3.19	3.05
50884CH	+	SN75154N	DIP-16	Quad line receiver	.75	.57	.428
277907CH	+	SN75172N	DIP-16	Quad differential line driver	1.15	.91	.69
245331CH	+	SN75173D	SOIC-16	Quadruple differential line receiver	1.15	.92	.70
50930CH	+	SN75173N	DIP-16	Quadruple differential line receiver	\$4.15	.96	.91
277958CH	+	SN75179BD	SOIC-8	Differential driver and receiver pair	.95	.79	.65
277940CH	+	SN75179BP	DIP-8	Differential driver and receiver pair	.67	.61	.52
278133CH	TI	SN75LBC180AN	DIP-14	Low pwr diff. line driver/receiver pairs	2.15	1.94	1.75
277966CH	+	SN75182N	DIP-14	Dual differential line receivers	.79	.66	.55

## Interface Series (Continued)



Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
277974CH	+	SN75183N	DIP-14	Dual differential line drivers	\$1.19	\$ .95	\$ .71
51027CH	+	SN75451AN	DIP-8	Dual peripheral AND driver	.39	.30	.23
51035CH	+	SN75452N	DIP-8	Dual peripheral NAND driver	.47	.45	.32
278002CH	+	SN75453BP	DIP-8	Dual peripheral OR drivers	.39	.30	.23
277317CH	+	SN75454BP	DIP-8	Dual peripheral NOR drivers	.39	.30	.23
277430CH	+	SN75462P	DIP-8	Dual peripheral NAND drivers	.62	.47	.36
278037CH	+	SN75471P	DIP-8	Dual peripheral AND driver	.63	.47	.31
278053CH	+	SN75472P	DIP-8	Dual peripheral NAND driver	.54	.42	.37
278061CH	+	SN75477P	DIP-8	Dual peripheral NAND driver	.56	.44	.34
51131CH	+	SN75492P	DIP-14	Hex digit driver (492)	3.45	3.00	2.81
310746CH	+	SN751177N	DIP-16	Dual differential drivers/receivers	2.75	2.39	2.32
253083CH	+	SN751730N	DIP-16	Triple line driver/receiver	2.35	1.90	1.50



## Digital Interface ICs

NEW



Part No.	Product No.	Pkg.	Description	1	10	50
323969CH	EDEF7609	DIP-8	Serial stepper motor controller	\$11.99	\$11.39	\$10.49
323977CH	EDEF7639/P	DIP-8	Servo controller	9.99	9.49	8.49
323993CH	EDEF7649	DIP-8	Five pin output controller	9.99	9.49	8.49
171951CH	EDE702	DIP-18	Serial LCD interface	8.99	7.65	6.75
321710CH	EDE707	DIP-28	Octal 7-segment LED display decoder	8.99	7.65	6.75
321728CH	EDE747	DIP-24	7-segment decoder/driver	5.99	4.65	4.15
321701CH	EDE1188	DIP-28	8x8 matrix universal keypad encoder	8.89	7.65	6.75
171969CH	EDE1144	DIP-18	Keypad encoder	6.99	5.65	5.00
141532CH	EDE1200	DIP-18	Unipolar stepper motor controller	8.29	6.90	5.90
157526CH	EDE1204	DIP-18	Bipolar stepper motor controller	8.29	6.90	5.90
321736CH	EDE2008	DIP-18	Pushbutton debouncer w/ 8-independent chan	5.99	4.65	4.15
321744CH	EDE2108A	DIP-20	One-of-eight latch single channel	5.99	5.09	4.15
321752CH	EDE2108D	DIP-20	One-of-eight latch act/deact	5.99	5.09	4.15
321761CH	EDE2208/P	DIP-18	8-pushbutton momentary to toggle	5.69	3.99	3.79
324005CH	EDE8744	DIP-28	16-key serial keypad and 2x40 LCD driver	13.89	11.79	10.65

## 5000 Series &amp; Clock Chips



Part No.	Cross Ref.	Pkg.	Description	1	10	50
32803CH	TCM5089N	DIP-16	Integrated tone dialer chip	\$4.99	\$4.49	\$3.99
26091CH	MM5321N	DIP-16	TV camera synchronous generator	\$6.99	5.99	5.45
26171CH	MM5450N	DIP-40	34-segment LED display driver	2.99	2.79	2.39
86799CH	LM555CM	SOIC-8	Timer (NE555D)	.24	.21	.185
27422CH	LM555CN**	DIP-8	Timer (MC1455P/NE555V)	.27	.23	.19
126797CH	LMC555CN*	DIP-8	CMOS 555 timer	.54	.49	.44
24328CH	LM556N*	DIP-14	Dual 555 timer	.77	.57	.42
243395CH	DP8573AN	DIP-24	5V real time clock chip	12.35	10.70	9.59
26201CH	MM58167AN	DIP-24	Microprocessor real time clock	4.49	3.85	2.85
95530CH	RTC72421B	DIP-18	Real time clock module	6.79	5.69	4.17
25101CH	MC146818	DIP-24	Real time clock plus RAM	4.09	3.48	3.15

\*10 pcs. in Linear series IC cabinet kit, pg 37 \*\*20 pcs. in Linear series IC cabinet kit, pg 37

\* Pull = Extra Savings

## UARTs




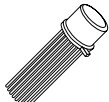
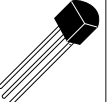
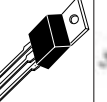

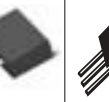
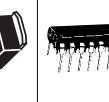
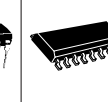
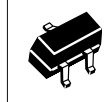




Part No.	Cross Ref.	Pkg.	Description	1	10	100
43158CH	6402	DIP-40	CMOS/LSI UART (TR1863)	\$4.95	\$4.49	\$4.05
27507CH	NS16C450N	DIP-40	CMOS ACE (IBM-AT compat.) (82C450)	\$3.49	2.39	1.93
288753CH	TL16C450FN	PLCC-68	5V UART, 1-channel w/o FIFO	2.65	2.12	1.66
288761CH	TL16C451FN	PLCC-68	5V UART, 1-channel w/o FIFO, parallel port	4.39	3.55	2.79
288770CH	TL16C452FN	PLCC-68	5V UART, 2-channel w/o FIFO, parallel port	4.45	3.59	2.85
27596CH	NS16550AN	DIP-40	UART w/ FIFO (PC16550DN)	5.89	4.49	3.39
288796CH	TL16C550CFN	PLCC-44	5V UART, 1-channel w/ FIFO, ACF	3.09	2.49	1.95
288809CH	TL16C550CN	DIP-40	5V UART, 1-channel w/ FIFO, ACF	3.09	2.49	1.95
288825CH	TL16C552AFN	PLCC-68	5V UART, 2-channel, bicentronics port	5.99	4.85	4.09
288841CH	TL16C554FN	PLCC-68	5V UART, 4-channel w/ 16B FIFO	9.95	9.45	8.99
288876CH	TL16C750FN	PLCC-44	5V UART, 1-channel w/ 64B FIFO	5.75	5.65	5.55
288905CH	TL16C754BFN	PLCC-68	5V UART, 4-channel w/ 64B FIFO	13.69	12.99	12.35

\* Pull = Extra Savings

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TO-3	TO-5/TO-52	TO-92	TO-220	TO-252	TO-263	DD	DIP	SOIC & SOP	SOT-23	SOT-223	MW	PLCC
												

## Manufacturer Cross Reference Table

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Analog Devices	ADI	Linear Technology	LTC	Microchip	MCH	On Semi	ON	Texas Instruments	TI
Anachip	ANA	Maxim Corporation	MAX	National Semiconductor	NSC	ST Micro	ST	Jameco Value Offering	+

## Encoders/Decoders

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
243942CH	HCS300	DIP-8	2-6.3V, Code hopping decoder	\$1.79	\$1.69	\$1.55
243483CH	HCS512	DIP-18	3-6V, Code hopping decoder	7.15	6.85	6.50
243934CH	HCS515	DIP-14	3-6V, Code hopping decoder	\$3.25	3.05	2.89
243951CH	HCS2000	DIP-8	3.5-13V, Code hopping decoder	\$4.95	1.65	1.53
123730CH	HT12E	DIP-18	Encoder 12-bit	1.69	1.49	1.29
123748CH	HT12D	DIP-18	Decoder 8-bit address/4-bit data	1.69	1.49	1.29
126607CH	HT648L	DIP-24	Remote control decoder	2.89	2.39	2.29
243441CH	MCP2120	DIP-14	IrDA encoder/decoder	2.15	2.05	1.95
243459CH	MCP2150	DIP-18	IrDA standard protocol stack controller	7.59	7.39	7.03
243408CH	TP3054	DIP-16	5V serial PCM u-Law	2.39	1.79	1.49
243416CH	TP3057	DIP-16	5V serial PCM A-Law	2.49	1.75	1.49
243424CH	TP3064	DIP-20	5V serial PCM u-Law	3.19	3.11	3.05
243432CH	TP3067	DIP-20	5V serial PCM A-Law	2.39	1.95	1.49
289529CH	TL320AC01CFN	PLCC-28	Audio codec, 14-bit, 1-channel, 25kHz	6.99	6.85	6.60
288745CH	TIR1000PWR	TSSOP-8	Standalone IrDA encoder/decoder	2.25	2.19	2.05
287937CH	MCP2120	SOIC-14	IrDA encoder/decoder	1.99	1.89	1.85
287945CH	MCP2140-I/P	DIP-18	IrDA controller, + DTE/DCE endec	2.29	2.26	2.17
287953CH	MCP2140-I/SO	SOIC-18	IrDA controller, + DTE/DCE endec	2.29	2.22	2.15
287961CH	MCP2140-I/SS	SSOP-20	IrDA controller, + DTE/DCE endec	2.39	2.35	2.27
287970CH	MCP2150-I/SO	SOIC-18	IrDA standard protocol stack controller	6.95	6.85	6.70
291004CH	TP3054WM	SOIC-16	PCM codec, 1-ch., u-law, 2MHz	2.25	1.75	1.35
287849CH	MC145026D	SOIC-16	Encoder, 9-line, simplex, OSC.	1.99	1.27	1.15
296702CH	MC145026P	DIP-16	Encoder, 9-line, simplex, OSC.	1.99	1.29	1.15
287865CH	MC145027DW	SOIC-16	Decoder, 5-line, simplex, OSC.	2.39	2.05	1.80
296711CH	MC145027P	DIP-16	Decoder, 5-line, simplex, OSC.	2.25	1.55	1.41
296729CH	MC145028P	DIP-16	Decoder, 9-line simplex, OSC.	2.75	1.85	1.69
287873CH	MC145481DW	SOG-20	PCM codec, 13-bit, 1-ch., u-law/a-law	2.69	2.49	2.35
287881CH	MC145483SD	SSOP-20	PCM codec, 13-bit, 1-ch., u-law/a-law	3.05	2.85	2.60
287890CH	MC145484DW	SOIC-20	PCM codec, 13-bit, 1-ch., u-law/a-law	2.39	1.65	1.55
287902CH	MC145484SD	SSOP-20	PCM codec, 13-bit, 1-ch., u-law/a-law	2.75	2.49	2.35

## KAE Servo and Stepper Motor Controllers

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

## 146472CH: PIC-SERVO Motion Control Chipset for DC Motors

- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO V.4, 28-pin and PIC-ENC V.1, 18-pin)



175901CH

## 175901CH: PIC-STEP Motion Control Chip for Stepper Motors

- Step rates up to 50,000 steps/sec. – suitable for use with microstepping drivers
- Trapezoidal positioning and profiled velocity modes
- Programmable current limits automatically switch between holding and running currents
- Programmable accelerations and minimum step rates

## 323934CH: PIC-SERVO SC Servo Motion Control I.C.

- Servo controller for DC motors (brush or brushless w/ incremental encoder feedback)
- Serial interface connects to RS232/485/422 communication port
- Position control, velocity control, trapezoidal profiling, plus step and direction inputs

Part No.	Description	Package	1	10	50
146472CH	PIC-SERVO chip set	DIP-28/18, 0.3"	\$34.95	\$29.50	\$27.95
175901CH	PIC-STEP chip	DIP-28, 0.3"	25.75	21.75	19.75
323934CH	KAE-T01V10-DP	DIP-28, 0.3"	28.95	24.49	22.25

## Stepper Motor Drivers/Controllers

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
288059CH	L292	Multiwatt-15	Switch mode DC motor drive, 36V, 36kHz	\$5.39	\$4.99	\$3.99
288067CH	L297/1	DIP-20	5V stepper motor controller	5.49	5.25	4.69
288075CH	L297D	SOIC-20	5V stepper motor controller	5.99	5.69	5.40
288083CH	L6201	SOIC-20	36V DMOS full bridge motor driver	7.79	7.19	6.45
288091CH	L6202	DIP-18	36V DMOS full bridge motor driver	7.85	6.39	5.79
288104CH	L6203	Multiwatt-11	36V DMOS full bridge motor driver	12.35	11.09	10.55
288112CH	L6506	DIP-18	5V stepper motor current controller	4.25	3.49	2.95
288121CH	L6506D	SOIC-20	5V stepper motor current controller	4.49	3.75	3.31

## A/D &amp; D/A Converters

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
43748CH	7106CPL	DIP-40	A/D with 3 1/2-digit LCD control	\$3.39	\$2.99	\$2.49
43756CH	7107CPL	DIP-40	A/D with 3 1/2-digit LED control	3.19	2.59	2.19
290263CH	ICL7135CPI	DIP-28	4 1/2 digit precision A/D converter	5.79	4.70	4.02
289545CH	TLC5401DW	SOIC-20	8-bit A/D w/ MUX, sample and hold, serial, 75kHz	3.39	3.25	3.15
289553CH	TLC5401FN	PLCC-20	8-bit A/D w/ MUX, sample/hold, serial, 75kHz	3.39	3.29	3.15
289588CH	TLC5401IN	DIP-20	8-bit A/D w/ MUX, sample/hold, serial, 75kHz	3.35	3.15	2.99
289596CH	TLC5411DW	SOIC-20	8-bit A/D w/ MUX, sample/hold, serial, 40kHz	2.89	2.64	2.55
289609CH	TLC5411FN	PLCC-20	8-bit A/D w/ MUX, sample/hold, serial, 40kHz	2.75	2.45	1.95
289625CH	TLC5411IN	DIP-20	8-bit A/D w/ MUX, sample/hold, serial, 40kHz	2.85	2.69	2.55
289684CH	TLC542CDW	SOIC-20	8-bit A/D w/ OSC., 25kHz	2.55	2.47	2.45
289692CH	TLC542CN	DIP-20	8-bit A/D w/ OSC., 25kHz	2.55	2.47	2.45
289705CH	TLC5421FN	PLCC-20	8-bit A/D w/ OSC., 25kHz	2.79	2.45	1.97
289713CH	TLC545CN	DIP-28	8-bit A/D w/ MUX, sample/hold, serial 76kHz	5.45	5.35	5.25
289730CH	TLC5481D	SOIC-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	2.39	2.25	2.20
289756CH	TLC548CP	DIP-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	2.35	1.99	1.69
289781CH	TLC549CD	SOIC-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	1.95	1.75	1.65
289810CH	TLC549CP	DIP-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	1.99	1.76	1.69
290984CH	TLV5711DW	SOIC-24	8-bit, 1-ch parallel A/D converter, 2.7V to 5.5V	4.29	4.09	3.99
290992CH	TLV5711PW	TSSOP-24	8-bit, 1-ch parallel A/D converter, 2.7V to 5.5V	4.29	4.09	3.99
10145CH	ADC0803LCN	DIP-20	8-bit A/D 1-input ( $\pm 1/2$ LSB), 100 $\mu$ s	4.59	4.15	3.65
10153CH	ADC0804LCN	DIP-20	8-bit A/D 1-input ( $\pm 1$ LSB), 100 $\mu$ s	2.49	1.89	1.39
10170CH	ADC0808CCN	DIP-28	8-bit A/D w/ 8-ch. mux. ( $\pm 1/2$ LSB), 100 $\mu$ s	4.99	4.19	3.43
10188CH	ADC0809CCN	DIP-28	8-bit A/D w/ 8-ch. mux. ( $\pm 1$ LSB), 100 $\mu$ s	2.89	2.59	1.99
10209CH	ADC0817CCN	DIP-40	8-bit A/D w/ 16-ch. mux. ( $\pm 1/2$ LSB), 100 $\mu$ s	7.29	6.65	5.95
10225CH	ADC0820CCN	DIP-20	8-bit hi spd (1/2 $\mu$ s) A/D w/ track&hold	2.99	2.29	2.10
116100CH	ADC0831CCN	DIP-8	8-bit A/D w/ mux. diff. input ( $\pm 1$ LSB), 32 $\mu$ s	1.95	1.75	1.59
290474CH	TLV0831CD	SOIC-8	8-bit A/D, multiplexer, serial, 49kHz	2.39	2.29	2.25
290491CH	TLV0831CP	DIP-8	8-bit A/D, multiplexer, serial, 49kHz	2.39	2.15	1.75
251176CH	TL0831CP	DIP-8	8-bit A/D, w/ serial control ( $\pm 1$ LSB), 32 $\mu$ s	2.69	2.55	2.45
290538CH	TLC0832CD	SOIC-8	8-bit A/D, multiplexer, serial, 45kHz	2.39	2.29	2.25
290554CH	TLV0832CP	DIP-8	8-bit A/D, multiplexer, serial, 45kHz	2.39	2.29	2.25
290562CH	TLV0834CD	SOIC-14	8-bit A/D, multiplexer, serial, 41kHz	2.49	2.25	1.79
290571CH	TLV0834IN	DIP-14	8-bit A/D, multiplexer, serial, 41kHz	2.65	2.57	2.50
290600CH	TLV0838CDW	SOIC-20	8-bit A/D, multiplexer, serial, 38kHz	2.49	2.39	2.35
290618CH	TLV0838IN	DIP-20	8-bit A/D, multiplexer, serial, 38kHz	2.65	2.55	2.50
287603CH	ADS930E	SSOP-28	8-bit A/D ( $\pm 1$ LSB), 30MHz	4.89	4.60	4.00
296690CH	AD7226KN	DIP-20	8-bit A/D 4-input ( $\pm 1$ LSB), 5 $\mu$ s	19.89	18.79	17.65
287321CH	AD7226KR	SOIC-28	8-bit A/D 4-input ( $\pm 1$ LSB), 5 $\mu$ s	19.89	18.79	17.65
242296CH	TLC1543	DIP-20	10-bit A/D 11-inputs ( $\pm 1$ LSB), 38ksps	3.39	2.89	2.33
242309CH	TLC1549	DIP-20	10-bit A/D 1-input ( $\pm 1$ LSB), 38ksps	3.69	2.99	2.29
287591CH	ADS901E	SSOP-28	10-bit A/D, ( $\pm 1$ LSB), 25MHz	6.49	6.25	5.90
288681CH	THS1030IDW	SOIC-28	10-bit A/D, 30Msps parallel	7.29	7.05	6.75
288690CH	THS1031IDW	SOIC-28	10-bit A/D, 30Msps parallel	8.09	7.85	7.55

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

A/D & D/A Converters (Continued)

				Package (see pg 34)		
Part No.	Cross Ref.	Pkg.	Description	1	10	100
288729CH	THS1031IPW	TSSOP-28	10-bit A/D, 30MSPs parallel .....	\$8.09	\$7.85	\$7.55
289001CH	TLC1541CDW	SOP-20	10-bit A/D, 11-input serial, 32kHz .....	6.05	5.75	5.45
289019CH	TLC1541CN	DIP-20	10-bit A/D, 11-input serial, 32kHz .....	6.09	5.85	5.75
289027CH	TLC1541CFN	PLCC-20	10-bit A/D, 11-input serial, 32kHz .....	5.79	5.59	5.39
289078CH	TLC1542CDW	SOP-20	10-bit A/D, 11-input serial, 38kHz .....	4.65	4.09	3.49
289107CH	TLC1542CN	DIP-20	10-bit A/D, 11-input serial, 38kHz .....	4.55	4.39	4.25
289115CH	TLC1542CFN	PLCC-20	10-bit A/D, 11-input serial, 38kHz .....	4.55	4.39	4.25
289123CH	TLC1543CDB	SSOP-20	10-bit A/D, 11-input serial, 38kHz .....	3.65	3.25	3.05
289131CH	TLC1543CDW	SOIC-20	10-bit A/D, 11-input serial, 38kHz .....	3.35	3.25	3.09
289220CH	TLC1543CFN	PLCC-20	10-bit A/D, 11-input serial, 38kHz .....	3.35	3.25	3.09
289271CH	TLC1543CDB	SSOP-20	10-bit A/D, 11-input serial, 38kHz .....	4.05	3.79	3.75
289300CH	TLC1543QDW	SOIC-20	10-bit A/D, 11-input serial, 38kHz .....	3.99	3.79	3.75
289334CH	TLC1543CFN	PLCC-20	10-bit A/D, 11-input serial, 38kHz .....	3.99	3.79	3.75
289369CH	TLC1549CD	SOP-8	10-bit A/D serial, 11-input, 38kHz .....	3.35	3.19	3.05
289377CH	TLC15511FN	PLCC-28	10-bit A/D, 11-input parallel, 164kHz, ITMP ..	6.29	5.99	5.70
277165CH	MAX186BCPP	DIP-20	12-bit A/D serial 8-input, low power .....	29.95	23.55	21.25
277157CH	MAX186DCWP	SOIC-20	12-bit A/D serial 8-input, low power .....	19.75	15.55	13.99
277696CH	MAX197BCNI	DIP-28	12-bit A/D w/ 8-ch, 1/2 LSB .....	24.99	22.95	20.95
287515CH	ADS574JP	DIP-28	12-bit A/D (±1 LSB), 40kSPs .....	38.79	36.85	35.00
287574CH	ADS574KP	DIP-28	12-bit A/D (±1 LSB), 40kSPs .....	44.75	42.49	40.39
287283CH	AD674BJN	DIP-28	12-bit A/D 1-input (±1 LSB), 15us .....	41.35	31.05	25.05
287582CH	ADST774JU	SOIC-28	12-bit A/D (±1 LSB), 125kSPs .....	35.45	33.69	32.00
309711CH	LC1298CN8	DIP-8	12-bit A/D (±3/4 LSB), 11kSPs .....	8.95	7.66	7.18
289422CH	TLC2543CDW	SOIC-20	12-bit A/D, 11-input serial, 66kHz .....	8.35	7.95	7.55
289431CH	TLC2543CFN	PLCC-20	12-bit A/D, 11-input serial, 66kHz .....	7.29	6.55	5.59
289465CH	TLC2543CN	DIP-20	12-bit A/D, 11-input serial, 66kHz .....	8.35	7.95	7.55
289473CH	TLC2543CDB	SSOP-20	12-bit A/D, 11-input serial, 66kHz .....	8.35	7.95	7.55
290634CH	TLV2543CDW	SOIC-20	12-bit A/D, 11-channel serial .....	7.99	7.79	7.55
290669CH	TLV2543CDW	DIP-20	12-bit A/D, 11-channel serial .....	8.35	7.95	7.55
43764CH	7109CPL	DIP-40	12-bit A/D 1-input (±2 LSB), 30SPs .....	7.49	6.37	4.77
311781CH	MCP3221A5T-IOT	SOT-23A/5	12-bit A/D, low-power 12C interface .....	2.05	1.95	1.85
287988CH	MCP3301-CI/MS	MSOP-8	13-bit A/D, 1-input serial, diff. input .....	2.79	2.65	2.55
287996CH	MCP3301-CI/P	DIP-8	13-bit A/D, 1-input serial, diff. input .....	2.59	2.49	2.40
288008CH	MCP3302-CI/P	DIP-14	13-bit A/D, 2-input serial, diff. input .....	3.59	3.45	3.30
288016CH	MCP3302-CI/SL	SOIC-14	13-bit A/D, 2-input serial, diff. input .....	3.59	3.45	3.30
288024CH	MCP3302-CI/ST	TSSOP-14	13-bit A/D, 2-input serial, diff. input .....	3.85	3.65	3.50
288032CH	MCP3304-CI/P	DIP-16	13-bit A/D, 4-input serial, diff. input .....	3.95	3.79	3.65
288041CH	MCP3304-CI/SL	SOIC-16	13-bit A/D, 4-input serial, diff. input .....	3.95	3.79	3.65
277149CH	MAX110ACWE	SOIC-16	14-bit A/D serial w/ 2-ch, low cost .....	15.25	11.99	10.79
277131CH	MAX110BCPE	DIP-16	14-bit A/D serial w/ 2-ch, low cost .....	11.69	9.21	8.29
277122CH	MAX110BCWE	SOIC-16	14-bit A/D serial w/ 2-ch, low cost .....	11.69	9.21	8.29
313779CH	TC500ACOE	SOIC-16	17-bit A/D analog "front end", 18mW .....	4.55	4.51	4.46
313787CH	TC500CPE	DIP-16	17-bit A/D analog "front end", 18mW .....	3.35	3.05	2.89
287312CH	AD676JD	DIP-28	16-bit A/D 1-input (±1 LSB), 100kSPs .....	85.69	83.85	81.99
242317CH	ADS7805	DIP-28	16-bit A/D 1-input (±3 LSB), 100kSPs .....	38.29	36.35	34.52
242325CH	ADS7813	DIP-16	16-bit A/D 1-input (±2 LSB), 40kSPs .....	37.85	35.25	33.15
239417CH	ADS7825	DIP-28	16-bit A/D 4-inputs (±2 LSB), 40kSPs .....	46.55	43.45	41.35
287401CH	AD976ABN	DIP-28	16-bit A/D 1-input (±2 LSB), 200kSPs .....	72.69	69.49	66.05
287419CH	AD976ABRS	SSOP-28	16-bit A/D 1-input (±2 LSB), 200kSPs .....	72.99	69.49	66.05
287435CH	AD976BR	SOIC-28	16-bit A/D 1-input (±3 LSB), 100kSPs .....	58.55	55.59	52.85
287507CH	ADS1100A01DBVT	SOT-23/6	16-bit A/D, self-calibrating .....	3.59	3.45	3.25
288593CH	PCM1800E	SSOP-24	20-bit stereo A/D, 2-input serial, 32-48kHz ..	4.75	4.65	4.49
288622CH	PCM1801U	SOIC-14	20-bit stereo A/D, 2-input serial, 32-48kHz ..	4.89	4.29	4.15
287363CH	AD7714AN	DIP-24	24-bit A/D 6-input, 38kSPs .....	18.35	17.95	17.50
316726CH	TC7117CPL	DIP-40	A/D conv w/ 3 1/2 digit LED/LCD driver ....	3.75	2.89	2.75
287793CH	MC144110DW	SOIC-20	6-bit D/A, 6-input, serial R-2R .....	4.45	4.20	3.90
287822CH	MC144111DW	SOIC-16	6-bit D/A, 4-input, serial R-2R .....	3.65	2.49	2.29
115158CH	ADS58JN	DIP-16	8-bit D/A 1-input (±1/2 LSB), 200ns .....	12.59	11.99	11.29
14904CH	DAC0800LCN	DIP-16	8-bit D/A (±1 LSB), 100ns .....	1.79	1.59	1.45
14912CH	DAC0806LCN	DIP-16	8-bit D/A (±1 LSB), 150ns (MC1408P6) .....	1.89	1.85	1.82
14947CH	DAC0808LCN	DIP-16	8-bit D/A (±1 LSB), 150ns (MC1408P8) .....	1.59	1.39	1.09
14963CH	DAC0830LCN	DIP-20	8-bit D/A double buffer (.05% Lin.), 1µs ..	5.95	4.49	4.35
128186CH	DAC0832LCN	DIP-20	8-bit D/A double buffer (.20% Lin.), 1µs ..	3.09	2.99	1.89
290781CH	TLV5604ID	SOIC-16	8-bit D/A, 4-channel, serial .....	6.85	6.75	6.39
290790CH	TLV5604IPW	TSSOP-16	8-bit D/A, 4-channel, serial .....	6.85	6.75	6.39
289836CH	TLC5620CN	DIP-14	8-bit D/A, 4-channel, serial .....	2.89	2.72	2.69

A/D & D/A Converters (Continued)

				Package (see pg 34)		
Part No.	Cross Ref.	Pkg.	Description	1	10	100
289844CH	TLC5620CD	SOIC-14	8-bit D/A, 4-channel, serial .....	\$2.75	\$2.64	\$2.55
289861CH	TLC5628CDW	SOIC-16	8-bit D/A, 8-channel, serial .....	4.75	4.29	4.15
289879CH	TLC5628CN	DIP-16	8-bit D/A, 8-channel, serial .....	4.65	4.55	4.30
290968CH	TLV5628DW	SOIC-16	8-bit D/A, 8-channel, serial .....	4.49	3.95	3.75
290976CH	TLV5628CN	DIP-16	8-bit D/A, 8-channel, serial .....	4.69	3.79	2.99
54025CH	AD7523JN	DIP-16	8-bit D/A 1-input (±1 LSB), 150ns .....	2.99	2.49	2.19
289895CH	TLC7524CD	SOIC-16	8-bit D/A, multiplier, parallel .....	2.59	2.19	1.79
290052CH	TLC7524CN	DIP-16	8-bit D/A, multiplier, parallel .....	2.75	2.39	1.95
290087CH	TLC7528CN	DIP-20	8-bit D/A, multiplier, parallel .....	2.69	2.25	1.92
290095CH	TLC7528IDW	SOIC-20	8-bit D/A, multiplier, parallel .....	2.55	2.49	2.05
287339CH	AD7628KN	DIP-20	8-bit D/A 2-input (±1 LSB), 350ns .....	4.35	3.79	3.70
239425CH	TLC5615	DIP-8	10-bit D/A 1-input (±1 LSB), 12µs .....	3.49	2.79	2.32
287380CH	AD9760AR	SOIC-28	12-bit D/A, 125MSPs .....	8.19	7.39	6.69
287443CH	AD9832BRU	TSSOP-16	10-bit DDS D/A, 25MHz .....	8.89	8.15	7.29
287451CH	AD9850BRS	SSOP-28	10-bit DDS D/A w. comp., 3.5ns .....	20.09	18.45	17.39
287347CH	AD767JN	DIP-24	12-bit D/A 1-input (± LSB), 4us .....	20.49	19.49	18.50
287355CH	AD767KN	DIP-24	12-bit D/A 1-input (± LSB), 4us .....	20.09	18.69	16.65
14980CH	DAC1222LCN	DIP-18	12-bit D/A (.20% Lin.), 500ns .....	9.95	8.95	8.05
290802CH	TLV5610IDW	SOIC-20	12-bit D/A, 8-channel, serial .....	15.99	15.25	14.49
290845CH	TLV5610IPW	TSSOP-20	12-bit D/A, 8-channel, serial .....	16.05	15.25	14.49
290829CH	TLV5613IDW	SOIC-20	12-bit D/A, 1-channel, parallel .....	5.09	4.99	4.75
290853CH	TLV5613IPW	TSSOP-20	12-bit D/A, 1-channel, parallel .....	5.09	5.00	4.75
290896CH	TLV5614CD	SOIC-16	12-bit D/A, 4-channel, serial .....	13.95	12.25	12.59
290933CH	TLV5614CPW	TSSOP-16	12-bit D/A, 4-channel, serial .....	13.95	13.25	12.59
287398CH	AD9764AR	SOIC-28	14-bit D/A, 125MSPs .....	14.25	11.75	11.15
239433CH	DAC712	DIP-28	16-bit D/A 1-input (±1 LSB), 10µs .....	20.05	18.93	17.96
242771CH	DAC714P	DIP-16	16-bit D/A w/ serial interf. (±1 LSB), 10µs ..	39.35	33.75	29.55
243336CH	DAC715	SOIC-28	16-bit D/A w/ bus interface (±1 LSB), 10µs ..	34.55	33.65	32.85
243344CH	DAC716	DIP-16	16-bit D/A w/ serial interf. (±1 LSB), 10µs ..	27.45	25.65	24.85

Low Drop-Out Voltage Regulators


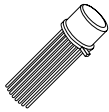
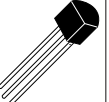
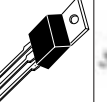

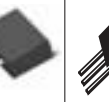
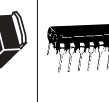
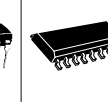
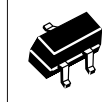




Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
299743CH	✦	LM1084IT-ADJ	TO-220	5A low drop out adj. pos. volt. reg.	\$1.75	\$1.32	\$ .98
299735CH	✦	LM1084IT-3.3	TO-220	5A low drop out 3.3V pos. volt. reg.	1.75	1.32	.98
309770CH	✦	LM1084IT-12	TO-220/3	5A low drop-out pos. 12V volt. reg. ...	1.17	1.09	1.02
314587CH	ANA	AP1084T	TO-220/3	5A LDO pos volt reg (adj) .....	1.19	.95	.77
282781CH	✦	LD1085D2M33	DD	3A low drop pos volt reg. adj./fixed ..	1.89	1.71	1.54
282757CH	✦	LT1085CT	TO-220	3A low drop pos volt reg. adj./fixed ..	1.79	1.61	1.45
302471CH	✦	LM1085IS-ADJ	TO-263	3A low drop out adj. pos. volt. reg. ....	1.29	.97	.72
302463CH	✦	LM1085IS-3.3	TO-263	3A low drop out 3.3V pos. volt. reg. ....	1.29	.97	.72
302455CH	✦	LM1085IT-ADJ	TO-220	3A low drop out adj. pos. volt. reg. ....	1.29	.97	.72
244304CH	✦	LD1086D2M	TO-263/3	Adjustable, low dropout volt. reg. ....	\$1.29 1.15	1.09	.90
244312CH	✦	LD1086D2M33	TO-263/3	3.3V, low dropout voltage reg. ....	1.07	.96	.89
245585CH	✦	LD1086D2M50	TO-263/3	5.0V, low drop positive voltage reg. ....	1.09	.97	.88
314579CH	ANA	AP1086D	TO-252/3	1.5A LDO pos volt reg (adj) .....	1.25	.91	.67
245526CH	✦	LM1086CS-ADJ	TO-263/3	1.5A low dropout positive reg. ....	1.09	.81	.59
192305CH	✦	LM1086CT-3.3	TO-220/3	1.5A low dropout positive reg. (3.3V) ...	1.09	.81	.60
192313CH	✦	LM1086CT-5.0	TO-220/3	1.5A low dropout positive reg. (5V) ..	1.18	.87	.64
192292CH	✦	LM1086CTADJ	TO-220/3	1.5A low dropout positive reg. ....	1.09	.79	.59
314552CH	ANA	AP1086D33	TO-252/3	1.5A low dropout positive volt reg (3.3V)	1.19	.90	.665
314536CH	ANA	AP1086T	TO-220/3	1.5A pos LDO voltage reg (adj) .....	1.25	.91	.67
314501CH	ANA	AP1086T33	TO-220/3	1.5A pos LDO voltage reg (3.3V) .....	1.25	.91	.67
314481CH	ANA	AP1117D	TO-252/3	1A pos adj LDO voltage reg .....	1.03	.76	.551
314472CH	ANA	AP1117D50	TO-252/3	1A pos LDO voltage reg (5V) .....	1.03	.76	.551
314464CH	ANA	AP1117E25	SOT-223/3	1A pos LDO voltage reg (2.5V) .....	.91	.68	.494
314448CH	ANA	AP1117E50	SOT-223/3	1A pos LDO voltage reg (5V) .....	.89	.68	.494
314376CH	ANA	AP1117T	TO-220/3	1A pos. adj. LDO voltage reg. ....	1.19	.865	.66
242042CH	✦	LM1117DT-3.3	TO-252/3	800mA low dropout linear reg. ....	.75	.66	.49
242069CH	✦	LM1117DT-5.0	TO-252/3	800mA, 5V, low dropout voltage reg. ....	.74	.54	.52
251782CH	✦	LM1117MPX-ADJ	SOT-223/3	800mA low drop out linear regulator ..	.37	.35	.33

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TO-3	TO-5/TO-52	TO-92	TO-220	TO-252	TO-263	DD	DIP	SOIC & SOP	SOT-23	SOT-223	MW	PLCC
												

## Manufacturer Cross Reference Table

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Analog Devices	ADI	Linear Technology	LTC	Microchip	MCH	On Semi	ON	Texas Instruments	TI
Anachip	ANA	Maxim Corporation	MAX	National Semiconductor	NSC	ST Micro	ST	Jameco Value Offering	+

## Low Drop-Out Voltage Regulators (Cont')

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
242114CH	+	LM1117T-3.3	TO-220/3	800mA, 3.3V, low dropout voltage reg.	\$.73	\$.56	\$.51
243539CH	+	LM1117T-ADJ	TO-220/3	800mA, adj., low dropout voltage reg.	.82	.71	.59
300222CH	LTC	LT1129CT	TO-220	Micropower low drop out reg. w/ shutdown	3.99	3.89	3.69
314325CH	ANA	AP1184K5	TO-263/5	4A ultra LDO adjustable regulator	5.29	3.69	3.29
244216CH	+	LT1585ACT-3.3	TO-220/3	5A, 3.3V, low dropout voltage reg.	4.39	3.97	3.57
244224CH	+	LT1585ACT-ADJ	TO-220/3	5A, adjustable, low dropout volt. reg.	4.75	4.20	3.60
244144CH	+	LT1587CM	DD/3	3A, low dropout voltage regulator	5.85	4.00	3.80
244152CH	+	LT1587CT-3.3	TO-220/3	3A, 3.3V, low dropout voltage reg.	1.39	1.03	.76
244161CH	+	LM1587CT-ADJ	TO-220/3	3A low dropout fast response reg.	1.65	1.22	.90
310244CH	TI	TLV2217-33KC	TO-220/3	Low drop-out 3.3V volt. reg. PNP	.76	.64	.515
310121CH	+	LM2930T-5.0	TO-220/3	3-terminal positive voltage regulator	.71	.69	.65
121030CH	+	LM2931AZ-5.0	TO-92	5V low dropout regulator	.49	.43	.31
23368CH	+	LM2931CT	TO-220/5	3V-24V low dropout regulator	\$.66	.56	.50
256612CH	+	LM2931D-5.0	SOIC-8	5V low dropout regulator	.46	.40	.35
121048CH	+	LM2931Z-5.0	TO-92	5V low dropout regulator	.39	.36	.34
291098CH	NSC	LM2937ES-2.5	TO-263	2.5V 500mA low drop out regulator	1.55	1.16	.87
297810CH	NSC	LM2937ET-5.0	TO-220	5V 500mA low drop out regulator	1.35	1.00	.88
291101CH	NSC	LM2937ET-10	TO-220	10V 500mA low drop out regulator	1.69	1.10	.91
192495CH	+	LM2940CT-12	TO-220/3	12V low dropout reg. (max. 45Vin)	1.27	1.02	.75
107182CH	+	LM2940CT-5	TO-220/3	5V low dropout reg. (max. 45Vin)	1.39	1.05	.77
245657CH	+	LM2941CS	TO-263/5	1A low dropout adjustable regulator	1.79	1.33	.99
121064CH	+	LM2941CT	TO-220/5	1A low dropout adjust. reg. (45Vin)	.99	.88	.71
23376CH	+	LM2941T	TO-220/5	1A low dropout adjust. reg. (60Vin)	1.59	1.19	.89
301292CH	+	LP2950ACZ-3.0	TO-92	Low power, low drop out volt. reg.	1.05	.88	.83
121101CH	+	LP2950ACZ-5.0	TO-92	100mA low pwr. low dropout volt. reg.	.69	.59	.44
266781CH	+	LP2950CDT-5.0	TO-252/3	100mA low pwr. low drop out volt. reg.	.99	.74	.54
266845CH	+	LP2950CZ-3.0	TO-92	100mA low pwr. low drop out volt. reg.	.80	.60	.47
266757CH	+	LP2950CZ-5.0	TO-92	100mA low pwr. low drop out volt. reg.	.80	.59	.29
266669CH	NSC	LP2967IBP-2533	BPA-8	Dual micropower 150ma low drop-out reg.	3.05	2.76	2.48
266589CH	NSC	LP2967IBP-2828	BPA-8	Dual micropower 150ma low drop-out reg.	3.05	2.76	2.49
266626CH	NSC	LP2967IMM-2528	MSOP-8	Dual micropower 150ma low drop-out reg.	2.79	2.50	2.25
266407CH	NSC	LP2967IMM-2533	MSOP-8	Dual micropower 150ma low drop-out reg.	2.79	2.50	2.25
266597CH	NSC	LP2967IMM-2626	MSOP-8	Dual micropower 150ma low drop-out reg.	2.79	2.52	2.27
266642CH	NSC	LP2967IMM-2828	MSOP-8	Dual micropower 150ma low drop-out reg.	2.79	2.50	2.25
266706CH	NSC	LP2986ILD-3.0	LLP-8	uPwr, 200mA ultra low dropout fixed volt reg.	1.99	1.79	1.62
266722CH	NSC	LP2987ILD-5.0	LLP-8	Same as above w/ prog. pwr-on reset delay	1.99	1.79	1.62
246545CH	NSC	LM3480IM3-3.3	SOT-23/3	100mA quasi low dropout linear volt. reg.	.99	.90	.81
246553CH	NSC	LM3480IM3-5.0	SOT-23/3	100mA quasi low dropout linear volt. reg.	.99	.74	.55
192524CH	+	LM3940IT-3.3	TO-220/3	1A low dropout, for 5V to 3.3V	1.95	1.76	1.36
252241CH	+	MC29152BU	TO-263/5	1.5A high current low dropout reg.	2.85	2.68	2.35
251344CH	TI	TP76201DBVR	SOT-23/5	100mA low pwr low output adj. LDO linear reg	1.29	1.16	1.04

## Voltage Regulators

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
282618CH	+	LM1117H	TO-39	3-terminal adjustable regulator	\$6.45	\$5.17	\$4.20
282036CH	+	LM140LAH-5.0	TO-39	3-terminal positive regulator	5.55	4.27	3.24
302375CH	+	LM217T	TO-220	1.2 - 37V adj. positive voltage reg.	.65	.62	.59
23499CH	+	LM309K	TO-3/2	5V 1A regulator (0°C to +125°C)	4.99	3.85	2.98
192268CH	+	LM317AT	TO-220/3	3-terminal adjustable reg. (1.2V-37V)	1.75	1.25	.95
192276CH	+	LM317HVT	TO-220/3	3-terminal adjustable reg. (1.2V-57V)	1.99	1.77	1.31
23544CH	+	LM317K	TO-3/2	1.5A adj. pos. reg. (1.2V-37V)	1.75	1.49	1.12
193551CH	+	LM317LM	SOIC-8	100mA adj. pos. regulator (1.2V to 37V)	.35	.30	.27
23552CH	+	LM317LZ	TO-92	100mA adj. pos. reg. (1.2V-37V)	.23	.22	.20
23579CH	+	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	.45	.39	.34

\* 20 pieces included in Linear kit, pg 37

## Voltage Regulators (Continued)

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
23667CH	+	LM323K	TO-3/2	5V 3A positive regulator	\$2.89	\$2.75	\$2.29
23798CH	+	LM337K	TO-3/2	1.5A/3 term. adj. neg. reg.	5.15	3.97	3.06
193586CH	+	LM337LM	SOIC-8	1.5A adj. neg. regulator (-1.2V to -37V)	.52	.46	.42
296841CH	+	LM337LZ	TO-92	3-terminal adj. negative voltage reg.	.54	.465	.395
23819CH	+	LM337T*	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V)	.59	.55	.44
23835CH	+	LM338K	TO-3/2	5A adj. pos. reg. (1.2V-32V)	4.95	3.89	3.25
192284CH	+	LM338T	TO-220/3	5A adjustable regulator	1.99	1.49	.99
23931CH	+	LM350K	TO-3/2	3A/3 term. adj. pos. reg. (1.2V-33V)	4.75	3.75	2.89
23940CH	+	LM350T	TO-220/3	3 amp. adj. power regulator	1.09	.89	.69
239134CH	+	LM431ACM	SOIC-8	Programmable shunt regulator	.29	.25	.21
278248CH	+	TL431AILP	TO-92	Adjustable precision shunt regulator	.41	.34	.23
314069CH	ANA	AP431AR	SOT-23	Prog. shunt regulator (5%, 2.5 - 36V)	.62	.536	.455
314051CH	ANA	AP431AVL	TO-92	Prog. shunt regulator (5%, 2.5 - 36V)	.65	.565	.475
314018CH	ANA	AP431V	TO-92	Prog. shunt regulator (1%, 2.5 - 36V)	.36	.31	.265
239142CH	+	LM431BCM	SOIC-8	Programmable shunt regulator	.48	.36	.26
251862CH	+	LM431CIM	SOIC-8	Adj. precision zener shunt regulator	.37	.32	.28
276525CH	MAX	MAX637ACPA	DIP-8	Presel/Adj. output CMOS invert switching reg.	6.25	4.95	4.46
276517CH	MAX	MAX637ACSA	SOIC-8	Presel/Adj. output CMOS invert switching reg.	6.45	4.93	3.60
214050CH	+	LM723CD	SOIC-14	High precision voltage regulator	.32	.27	.20
24467CH	+	LM723CN*	DIP-14	Voltage regulator (2V-37V)	.26	.24	.23
301719CH	+	LM723H	TO-5	2V - 37V, 150mA adj. voltage reg.	3.49	2.67	2.07
298071CH	+	MAX755CSA	SOIC-8	-5V/adj., neg. output, invert, curr. mode PWM reg.	3.85	3.65	3.46
291688CH	+	LM723HVT	TO-220/5	5A step-down switching regulator	9.19	8.99	8.55
300185CH	LTC	LTC1147LCS8	SOIC-8	High efficiency step-down switching reg.	5.65	3.65	2.95
302279CH	+	LM2524DN	DIP-16	200mA regulating PWM	1.39	.99	.90
192330CH	+	LM2574HVN-5.0	DIP-8	Simple switcher 0.5A step-down volt. reg.	3.49	2.99	2.49
192348CH	+	LM2574HVN-12	DIP-8	Simple switcher 0.5A step-down volt. reg.	3.95	3.02	2.33
245551CH	+	LM2574N-ADJ	DIP-8	Simple switcher 0.5A step-down volt. reg.	1.29	1.17	1.05
156566CH	+	LM2574N-5	DIP-8	Step-down 5-voltage regulator	1.49	1.27	.95
279638CH	NSC	LM2575HVT-5.0	TO-220	Simple switcher 1A step down volt. reg.	4.35	3.35	3.15
279603CH	NSC	LM2575HVT-12	TO-220	Simple switcher 1A step down volt. reg.	4.35	3.64	3.28
192399CH	+	LM2576HVT-12	TO-220/5	Simple switcher 3A step down volt. reg.	5.89	4.38	3.33
192381CH	+	LM2576HVT-5.0	TO-220/5	Simple switcher 3A step down volt. reg.	5.09	4.59	4.13
192372CH	+	LM2576HVT-ADJ	TO-220/5	Simple switcher 3A step down volt. reg.	5.09	3.93	3.04
245569CH	+	LM2576T-5.0	TO-220/5	Simple switcher 3A step down volt. reg.	2.35	1.76	1.36
120977CH	+	LM2576T-ADJ	TO-220/5	Simple switcher 3A step down volt. reg.	1.89	1.51	1.19
300821CH	NSC	LM2586S-ADJ	TO-263	Simple switcher 3A flyback reg. w/ shutdown	5.95	5.15	5.06
300871CH	NSC	LM2586S-5.0	TO-263	Simple switcher 3A flyback reg. w/ shutdown	5.95	5.15	5.06
300898CH	NSC	LM2586S-12	TO-263	Simple switcher 3A flyback reg. w/ shutdown	5.95	5.15	5.06
300919CH	NSC	LM2586T-ADJ	TO-220	Simple switcher 3A flyback reg. w/ shutdown	5.95	5.15	5.06
192410CH	+	LM2587T-ADJ	TO-220/5	Simple switcher 5A flyback regulator	7.59	6.05	4.90
300804CH	NSC	LM2588S-ADJ	TO-263	Simple switcher 5A flyback reg. w/ shutdown	7.75	6.20	5.55
300847CH	NSC	LM2588T-ADJ	TO-220	Simple switcher 5A flyback reg. w/ shutdown	7.79	7.45	7.05
300759CH	NSC	LM2592HVS-ADJ	TO-263	Simple switcher 2A step down voltage reg.	5.55	4.59	4.33
300783CH	NSC	LM2592HVS-5.0	TO-263	Simple switcher 2A step down voltage reg.	5.55	4.59	4.33
300724CH	NSC	LM2592HVT-ADJ	TO-220	Simple switcher 2A step down voltage reg.	5.55	4.25	3.53
300732CH	NSC	LM2592HVT-3.3	TO-220	Simple switcher 2A step down voltage reg.	5.55	4.80	4.33
300708CH	NSC	LM2594M-ADJ	SOIC-8	Simple switcher 0.5A step down voltage reg.	2.79	2.13	1.65
300716CH	NSC	LM2594M-3.3	SOIC-8	Simple switcher 0.5A step down voltage reg.	2.79	2.41	2.17
192428CH	NSC	LM2594N-ADJ	DIP-8	Simple switcher pwr. conv. 150kHz 0.5A	2.85	2.53	2.28
300695CH	NSC	LM2594N-3.3	DIP-8	Simple switcher 0.5A step down voltage reg.	2.79	2.29	2.17
300265CH	NSC	LM2595S-ADJ	TO-263	Simple switcher 1A step down voltage reg.	4.49	4.25	4.05
300273CH	NSC	LM2595S-12	TO-263	Simple switcher 1A step down voltage reg.	3.49	2.89	2.74
300775CH	NSC	LM2595T-ADJ	TO-220	Simple switcher 1A step down voltage reg.	3.49	2.70	2.07

\* 10 pieces included in Linear kit, pg 37

+ Blue Part No. = Limited Quantity Available

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Voltage Regulators (Continued)

Package (see pg 36)

* Prepackaged: order in increments of 10, 100 or 1000							
Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
192452CH	NSC	LM2595T-5.0	TO-220/5	Simple switcher pwr. conv. 150kHz 1A ...	\$1.95	\$1.74	\$1.59
310391CH	NSC	LM2596S-5.0	TO-263/5	Simple switcher 3A step down voltage reg. ...	3.89	2.99	2.85
290626CH	NSC	LM2596T-ADJ	TO-220/7	Simple switcher 3A step-down voltage reg. ...	3.89	2.99	2.35
290642CH	NSC	LM2596T-5.0	TO-220/7	Simple switcher 3A step-down voltage reg. ...	3.95	3.25	3.09
290597CH	NSC	LM2599T-ADJ	TO-220/7	Simple switcher 3A step-down voltage reg. ...	4.69	3.58	3.22
290731CH	NSC	LM2651MTC-ADJ	TSSOP-16	1.5A high eff. synchronous switching reg. ...	4.05	3.85	3.69
290749CH	NSC	LM2651MTC-3.3	TSSOP-16	1.5A high eff. synchronous switching reg. ...	3.15	2.99	2.85
290757CH	NSC	LM2670S-5.0	TO-263/7	5V hi efficiency simple switcher ...	4.29	3.55	3.35
312397CH	NSC	LM2636MTC	TSSOP-20	5-bit prog. synchronous buck reg. ....	3.45	2.65	2.51
312389CH	NSC	LM2653MTC-ADJ	TSSOP-16	1.5A high eff. synch. switching reg. ....	4.19	3.25	3.12
290765CH	NSC	LM2672N-5.0	DIP-8	5V hi efficiency simple switcher ...	3.79	3.15	2.96
290888CH	NSC	LM2674M-ADJ	SOIC-8	Adjustable voltage hi efficiency switcher ...	2.85	2.35	2.20
290861CH	NSC	LM2674N-5.0	DIP-8	5V hi efficiency simple switcher ...	2.85	2.35	2.20
291012CH	NSC	LM2675N-ADJ	DIP-8	Simple switcher 1A step down volt. reg. ...	3.65	2.99	2.85
291039CH	NSC	LM2678S-ADJ	TO-263/7	Simple switcher 5A step down volt. reg. ...	5.45	5.29	5.05
291047CH	NSC	LM2678T-5.0	TO-220/7	Simple switcher 5A step down volt. reg. ...	5.45	5.29	5.05
290651CH	NSC	LM2596S-ADJ	TO-263	Simple switcher 3A step down volt. reg. ...	3.89	2.99	2.28
290394CH	NSC	LM2599S-ADJ	TO-263/7	Simple switcher 3A step down volt. reg. ....	4.75	3.85	3.64
290925CH	NSC	LM2675LD-ADJ	LLP-16	Simple switcher 1A step down volt. reg. ...	4.59	4.35	4.15
245649CH	◆	LM2936MP-3.3	SOT-223	Ultra-low quiescent current 3.3V reg. ....	3.25	2.93	1.92
107166CH	◆	LM2936Z-5.0	TO-92	Ultra-low quiescent current 5V reg. ....	1.85	1.68	1.18
239151CH	◆	LP2951CM	SOIC-8	Adjustable micropower voltage regulator ...	.91	.68	(.49)
277077CH	◆	LP2952IM	SOIC-16	Adj. micropower low pwr volt reg. ....	2.35	1.75	1.44
51246CH	◆	7805K	TO-3/2	5V 1A pos. voltage reg. (LM340K-5) ...	1.15	3.95	3.06
51262CH	◆	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5) ...	.35	.32	.28
51182CH	◆	78L5CZ*	TO-92	5V 100mA pos. voltage regulator ...	.27	.24	.22
193754CH	◆	78L05ACM	SOIC-8	5V 100mA pos. voltage regulator ...	.28	.22	.19
192233CH	◆	78M05	TO-220/3	5V 500mA pos. voltage regulator ...	.35	.32	.24
51297CH	◆	7806T	TO-220/3	6V 1A pos. voltage reg. (LM340T-6) ...	.30	.25	.21
193762CH	◆	78L06ACM	SOIC-8	6.2V 100mA pos. voltage regulator ...	.29	.26	(.17)
51300CH	◆	7808CT*	TO-220/3	8V 1A pos. voltage reg. (LM340T-8) ...	.46	.35	.27
192225CH	◆	78L09ACZ	TO-92	9V 100mA pos. voltage regulator ...	.24	.23	.17
51318CH	◆	7812K	TO-3/2	12V 1A pos. voltage reg. (LM340K-12) ...	2.19	1.79	1.59
51334CH	◆	7812T**	TO-220/3	12V 1A pos. voltage reg. (LM340T-12) ...	.35	.32	.28
51203CH	◆	78L12CZ*	TO-92	12V 100mA pos. voltage regulator ...	.34	.19	.155
193771CH	◆	78L12ACM	SOIC-8	12V 100mA pos. voltage regulator ...	.34	.29	(.22)
192241CH	◆	78M12CT	TO-220/3	12V 500mA pos. voltage regulator ...	.31	.27	.21
51369CH	◆	7815K	TO-3/2	15V 1A pos. voltage reg. (LM340K-15) ...	1.19	1.12	1.03
51377CH	◆	7815T*	TO-220/3	15V 1A pos. voltage reg. (LM340T-15) ...	.28	.25	.22
193789CH	◆	78L15ACM	SOIC-8	15V 100mA pos. voltage regulator ...	...	.20	(.15)
192250CH	◆	78M15CT	TO-220/3	15V 500mA pos. voltage regulator ...	\$27.25	.14	.13
194634CH	◆	7818T	TO-220/3	18V 1A pos. voltage reg. (LM340T-18) ...	.56	.44	.34
51414CH	◆	7824T	TO-220/3	24V 1A pos. voltage reg. (LM340T-24) ...	.36	.34	.31
51238CH	◆	78S40CN	DIP-16	1.25V-40V 1.5A switching regulator ...	1.35	1.08	.87
51457CH	◆	7905T*	TO-220/3	5V 1A neg. voltage reg. (LM320T-5) ...	.42	.38	.36
51422CH	◆	79L05ACP	TO-92	5V 100mA neg. voltage regulator ...	.26	.22	(.165)
193797CH	◆	79L05ACM	SOIC-8	-5V 100mA neg. voltage regulator ...	.60	.14	.12
51449CH	◆	79M05CT	TO-220/3	3-terminal negative regulator ...	.84	.62	.46
51481CH	◆	7912CT*	TO-220/3	12V 1A neg. voltage reg. (LM320T-12) ...	.31	.27	.21
51431CH	◆	79L12CZ	TO-92	12V 100mA neg. voltage regulator ...	.23	.21	.16
193800CH	◆	79L12ACM	SOIC-8	-12V 100mA neg. voltage regulator ...	.58	.20	.18
51502CH	◆	7915CT*	TO-220/3	15V 1A neg. voltage reg. (LM320T-15) ...	.32	.27	.22
194749CH	◆	79L15ACZ	TO-92	15V 100mA neg. voltage regulator ...	.35	.30	.21
193818CH	◆	79L15ACM	SOIC-8	-15V 100mA neg. voltage regulator ...	...	.19	.17
316881CH	◆	MC34063AD	SOIC-8	1.5A Step-up/down inverting switch reg. ...	.52	.432	.353
316945CH	◆	MC34063AP1	DIP-8	1.5A Step-up/down inverting switch reg. ....	.66	.473	.437
314317CH	ANA	AP34063N	DIP-8	1.6A adjustable voltage regulator ...	.75	.66	.499

\*10 pieces included in Linear kit, right \*\*20 pcs. in Linear series IC cabinet kit, right

## Audio

Package (see pg 36)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
277624CH	◆	INA103KP	DIP-16	Low noise/distortion instr. amp. ....	\$8.55	\$7.67	\$6.91
277632CH	◆	INA103KU	SOIC-16	Low noise/distortion instr. amp. ....	8.55	7.67	6.91
278408CH	◆	TPA112D	SOIC-8	150mW stereo audio power amplifier ...	.89	.75	.60
310560CH	◆	TPA122D	SOIC-8	150mW stereo audio power amplifier.....	.98	.83	.75

## Audio (Continued)

Package (see pg 36)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
243678CH	ADI	OP275GP	DIP-8	Dual JFET audio op amp. ....	<del>\$2.75</del> \$1.95	\$1.62	\$1.52
243660CH	ADI	OP275GS	SOIC-8	Dual JFET audio op amp. ....	1.85	1.52	1.16
240373CH	NSC	LM380N	DIP-14	2-watt audio power amp. ....	.94	.87	.63
24088CH	NSC	LM383T	TO-220/5	7-watt audio high power amp. ....	5.95	5.39	4.95
24096CH	◆	LM384N	DIP-14	5-watt audio amp. ....	1.45	1.17	.87
193623CH	◆	LM386M-1	SOIC-8	Low volt. audio power amp. 250mW/12V ...	.31	.28	.24
24125CH	◆	LM386N-1*	DIP-8	Low voltage audio amp. 250mW/6V ....	.48	.35	.29
24133CH	◆	LM386N-3*	DIP-8	Low voltage audio amp. 500mW/9V ....	.69	.59	.49
24483CH	◆	LM725CN	DIP-8	Instrumentation op amplifier ...	2.39	1.84	1.42
279697CH	◆	LM833D	SOIC-8	Dual audio op amp. ....	.41	.36	.32
120942CH	◆	LM833N	DIP-8	Dual audio op amp. ....	.71	.57	.43
295718CH	NSC	LM1203N	DIP-28	RGB video amp. ....	4.55	4.09	3.69
24942CH	ON	MC1350P	DIP-8	Video IF amp (12V operation) ...	1.95	1.85	1.75
23270CH	NSC	LM1875T	TO-220/5	20-watt power audio amplifier ...	1.45	1.39	1.19
245334CH	NSC	LM1877M-9	SOIC-14	Dual audio power amplifier ...	1.39	1.04	.76
23288CH	NSC	LM1877N-9	DIP-14	Dual power audio amplifier ...	.95	.84	.61
245542CH	NSC	LM1881M	SOIC-8	Video synchronous separator ...	2.69	2.04	1.57
107140CH	NSC	LM1881N	DIP-8	Video synchronous separator ...	2.69	2.05	1.55
243547CH	NSC	LM1894N	DIP-14	DNR noise reduction ...	3.15	2.80	2.34
302519CH	NSC	LM1971M	SOIC-8	Audio attenuator with mute ...	2.35	1.79	1.65
302447CH	NSC	LM1972M	SOIC-20	2-channel audio attenuator ...	4.15	3.18	2.89
302421CH	NSC	LM1972N	DIP-20	2-channel audio attenuator ...	4.55	3.69	3.50
32897CH	ST	TDA2002V	TO-220/5	8-watt audio high power amp. ....	3.55	3.18	2.87
315344CH	◆	TDA2040V	PWAT-5	20W hi-fi audio power amp. ....	2.45	2.25	2.14
275830CH	ADI	OPA2134PA	DIP-8	High-performance audio op amp. ....	2.39	1.93	1.58
275821CH	ADI	OPA2134UA	SOIC-8	High-performance audio op amp. ....	2.25	2.02	1.82
312063CH	◆	SSM2141P	DIP-8	High common-mode rejection diff. line rec ...	3.19	2.79	2.69
252013CH	NSC	LM3875T	TO-220/11	56W high perf. audio power amp. ....	5.19	4.11	3.70
126834CH	NSC	LM3876T	TO-220/11	40W high perf. audio amp. with mute ...	4.75	3.66	2.82
320670CH	NSC	LM3886TF	TO-220/11	68W high perf. audio amp w/ mute ...	4.55	3.49	2.70
192516CH	NSC	LM3886T	TO-220/11	68W high perf. audio amp w/ mute ...	4.35	3.32	2.57
302201CH	NSC	LM4752T	TO-220	Stereo 11W audio power amp ...	2.45	1.82	1.35
302199CH	NSC	LM4860M	SOIC-16	1W audio power amp w/ shutdown mode ...	1.59	1.19	.88
267047CH	NSC	LM4864M	SOIC-8	725mW audio pwr amp w/ shutdown mode ...	1.45	1.06	.78
302181CH	NSC	LM4871M	SOIC-8	3W audio power amp w/ shutdown mode ...	1.45	1.09	.80
316873CH	◆	MC34119D	SOIC-8	LP audio amp (500mW, 16VDC) ...	.93	.71	.54
316865CH	◆	MC34119P	DIP-8	LP audio amp (500mW, 16VDC) ...	1.02	.66	.61

\*10 pieces included in Linear kit, below

## Comparators

Package (see pg 36)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
311052CH	NSC	LM111H	TO-5/8	Voltage comparator ...	\$3.39	\$2.60	\$2.01
311044CH	NSC	LM111J-8	DIP-8	Voltage comparator ...	4.35	3.32	3.15
282061CH	◆	LM139D	SOP-14	Low pwr, low offset volt quad comp. ....	.95	.80	.65
282087CH	◆	LM139J	CDIP-14	Low pwr, low offset volt quad comp. ....	2.29	1.74	1.30
302501CH	NSC	LM193H	TO-5	Dual low-power comparator ...	4.65	3.55	2.78
302391CH	◆	LM211D	SOIC-8	Hi-speed, strobed diff. comparator ...	.39	.315	.28
302383CH	◆	LM211P	DIP-8	Hi-speed, strobed diff. comparator ...	.26	.23	.185

## Linear and Interface IC Kit

SAVE \$59

10 each: TL072CP, TL074CN, TL082CP, TL084CN, MAX232CPE, LM301N, LM308N, LM311N, LM337T, LF353N, LF356N, LM358N, LM386N-1, LM386N-3, LM393N, LF411CN, LF412CN, LMC555CN, LM556N, LM723CN, LM1458N, DS1488N, DS1489N, ULN2003AN, ULN2803A, NE5532N, 7808T, 78L12CZ, 7815T, 7905T, 7912CT, 7915CT

20 each: LM317T, LM324N, LM339N, LM741CN, LM555CN, 7805T, 78L05CZ, 7812T


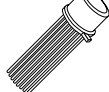
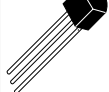
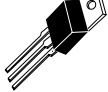


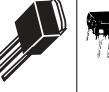
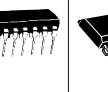
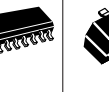






Part No.	Description	Wt. (lbs.)	1	10
84988CH	480 pcs. (40 types) analog IC kit	6.0	\$182.95	\$164.65
130411CH	Refill for 84988CH (480 pcs.)	1.3	169.95	145.95

Found a product at a lower print advertised price?  
We'll beat that price by 10% right down to our cost.



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

TO-3	TO-5/TO-52	TO-92	TO-220	TO-252	TO-263	DD	DIP	SOIC & SOP	SOT-23	SOT-223	MW	PLCC
												

Manufacturer Cross Reference Table

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Analog Devices	ADI	Linear Technology	LTC	Microchip	MCH	On Semi	ON	Texas Instruments	TI
Anachip	ANA	Maxim Corporation	MAX	National Semiconductor	NSC	ST Micro	ST	Jameco Value Offering	+

## Comparators (Continued)

Package (see above)

\* Prepackaged: order in increments of 10 or 100

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
302367CH	+	LM219D	SOIC-14	Dual high speed voltage comparator	\$.85	\$.79	\$.74
302287CH	+	LM239D	SOIC-14	Low-power, low-offset volt. quad comp	.28	.26	.245
212126CH	+	LM239N	DIP-14	Low pwr. low offset volt quad comp	.20	.13	.12
213188CH	+	LM306N	DIP-8	Differential comparator w/ strobes	.69	.50	.38
193543CH	+	LM311D	SOIC-8	Voltage comparator	.22	.20	.185
23528CH	+	LM311N*	DIP-8	Voltage comparator	.35	.25	.19
251918CH	+	LP311D	SOIC-8	Voltage comparator	.76	.64	.52
239193CH	+	LP311P	DIP-8	Differential comparator	.76	.65	.48
245690CH	+	LM319M	SOIC-14	High speed dual comparator	.37	.32	.235
23632CH	+	LM319N	DIP-14	Hi-speed dual comparator	.41	.36	.27
246537CH	+	LM339AM	SOIC-14	Low pwr low offset volt. quad comp.	.37	.315	.28
143888CH	+	LM339AN	DIP-14	Low power quad comparator	.29	.23	.193
193594CH	+	LM339M	SOIC-14	Low pwr low offset volt quad comp.	.27	.23	.185
23851CH	+	LM339N**	DIP-14	Quad comparator	*	.19	.165
251977CH	+	LP339M	SOIC-14	Ultra low power quad comparator	.74	.54	.40
121099CH	+	LP339N	DIP-14	Quad low-power comparator	.38	.365	.305
312047CH	TI	TLC372CD	SOIC-8	LinCMOS dual differential comp.	.76	.64	.515
312055CH	TI	TLC372CP	DIP-8	LinCMOS dual differential comp.	.76	.61	.515
314712CH	+	TLC374CD	SOP-14	LinCMOS quad differential comp.	.85	.71	.62
314704CH	+	TLC374CN	DIP-14	LinCMOS quad differential comp	.84	.71	.57
310404CH	+	TS374IN	DIP-14	Quad low-power CMOS volt. comp	.93	.80	.72
246633CH	+	LM392M	SOIC-8	Low power op amp./volt. comp.	1.09	1.01	.73
120900CH	+	LM392N	DIP-8	Low power op amp./volt. comp.	1.35	1.00	.75
246641CH	+	LM393AM	SOIC-8	Low pwr low offset volt dual comp.	.30	.25	.22
212177CH	+	LM393AN	DIP-8	Low pwr low offset volt dual comp.	*	.175	.135
193631CH	+	LM393D	SOIC-8	Low pwr offset voltage dual comp.	.33	.19	.14
24281CH	+	LM393N*	DIP-8	Dual comparator	.20	.18	.17
277093CH	+	LMV393M	SOIC-8	Low volt, general purpose dual comp.	.85	.63	.46
315328CH	+	TL712CD	SOIC-8	Differential comparator	1.25	1.06	.86
214041CH	TI	TL712CP	DIP-8	Differential comparator	1.15	.54	.49
278256CH	TI	TL714CP	DIP-8	High speed differential comparator	2.65	2.39	2.15
277173CH	NSC	LMC7211AIM	SOIC-8	Comp. w/ rail-to-rail input, push pull output	1.65	1.21	.90
277190CH	NSC	LMC7211BIM	SOIC-8	Comp. w/ rail-to-rail input, push pull output	1.65	1.21	.85
277114CH	NSC	LMC7221AIM	SOIC-8	Comp. w/ rail-to-rail input, open drain output	1.89	1.42	1.08
297844CH	+	MAX902CSD	SOIC-14	Hi-speed, low-pwr precision volt. comp.	9.45	7.63	6.87
291143CH	LTC	LT1016CN-8	DIP-8	Fast precision comparator, 10ns	4.99	3.55	3.45
312266CH	LTC	LT1016CS8	SOIC-8	Ultrafast precision 10ns comparator	4.89	3.55	2.76
310279CH	TI	TLV2352ID	SOIC-8	LinCMOS dual low-voltage diff. comp.	1.69	1.55	1.49
280066CH	TI	TLV2354IN	DIP-14	LinCMOS quad low volt diff comp.	2.85	2.56	2.31
245577CH	+	LM2901M	SOIC-14	Low pwr low offset volt. quad comp.	.30	.25	.20
23296CH	+	LM2901N	DIP-14	Quad comparator	.25	.21	.156
245614CH	+	LM2903M	SOIC-14	Low power low offset volt. dual comp.	.28	.25	.22
23309CH	+	LM2903N	DIP-8	Low power low offset volt. dual comp.	.31	.27	.21
311036CH	TI	TL3016CD	SOIC-8	Ultra-fast low-power precision comp.	1.85	1.47	1.12
278213CH	TI	TL3016ID	SOIC-8	Ultra-fast, low pwr precision comp	2.25	2.03	1.83
278230CH	TI	TL3116CD	SOP-8	Ultra-fast, low pwr precision comp.	1.89	1.68	1.51
278221CH	TI	TL3116ID	SOP-8	Ultra-fast, low pwr precision comp.	1.99	1.80	1.62
245711CH	+	LM3302D	SOIC-14	Low pwr low offset volt. quad comp.	.49	.37	.285
107238CH	+	LM3302N	DIP-14	Low pwr low offset volt. quad comp.	.48	.43	.36
309964CH	+	TLC3704CD	SOIC-14	LinCMOS Quad micro volt. comp.	.99	.82	.68
280137CH	+	TLC3704CN	DIP-14	Quad uPwr LinCMOS volt comp.	1.09	.92	.84
277202CH	NSC	LMC6772AIM	SOIC-8	Dual uPwr rail-to-rail input w/open drain output	2.75	2.10	1.63

\* 10 pcs. in Linear series IC cabinet kit, pg 37 \*\* 20 pcs. in Linear series IC cabinet kit, pg 37

## Buffers

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
23051CH	+	LH0002CN	DIP-10	General purpose buffer	\$12.25	\$10.25	\$7.95
313277CH	+	ZXB05N14	SOIC-14	4-CH buffer w/ high cap load	2.75	2.44	2.19
277552CH	TI	BUF634P	DIP-8	250mA high speed buffer	5.89	5.31	4.78
277544CH	TI	BUF634T	TO-220	250mA high speed buffer	7.85	7.60	6.35
277579CH	TI	BUF634U	SOIC-8	250mA high speed buffer	5.89	5.33	4.79
300249CH	LTC	LT1010CN8	DIP-8	150mA high speed buffer	4.35	4.25	4.05

## Op Amps

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
193471CH	+	OP07CD	SOIC-8	Very low offset single bipolar op amp.	\$.62	\$.34	\$.31
27852CH	+	OP07CP	DIP-8	Ultra-low-offset-voltage op amp.	.61	.59	.56
252988CH	+	OP07DP	DIP-8	Very low offset single bipolar op amp.	.62	.52	.42
23106CH	+	LM10CLN	DIP-8	Low voltage (1.1 volt) op amp.	1.95	1.79	1.65
120715CH	+	LM10CN	DIP-8	Op amp and voltage reference	<del>\$.49</del> 2.49	1.92	1.49
120723CH	NSC	LM12CLK	TO-3/4	80W op amp.	23.45	21.10	18.99
213090CH	+	TL022CP	DIP-8	Dual low power op amp.	.99	.84	.63
252996CH	+	OP27EZ	CDIP-8	Low noise hi speed precision op amp.	13.65	12.28	11.05
115300CH	+	OP27EP	DIP-8	Low noise precision op amp.	4.19	3.85	3.24
115318CH	+	OP27GP	DIP-8	Low noise prec. op amp. (-40° to 80°C)	2.09	1.69	1.27
275805CH	TI	OPA27GP	DIP-8	Ultra-low noise, precision op amp.	2.19	1.98	1.79
275784CH	TI	OPA27GU	SOIC-8	Ultra-low noise, precision op amp.	2.35	2.09	1.89
253032CH	+	TL031CD	SOIC-8	Enhanced JFET low pwr/offset op amp.	.78	.66	.53
213102CH	+	TL031CP	DIP-8	Enhanced JFET low pwr/offset op amp.	.71	.60	.45
279671CH	+	TL032ACP	DIP-8	Enhanced JFET low pwr/offset op amp.	1.85	1.67	1.51
253059CH	+	TL032CD	SOIC-8	Enhanced JFET low pwr/offset op amp.	1.02	.92	.74
213111CH	+	TL032CP	DIP-8	Enhanced JFET low pwr/offset op amp.	.74	.69	.64
253235CH	+	TL034CD	SOIC-14	Enhanced JFET low pwr/offset op amp.	1.12	.91	.83
214068CH	+	TL034CN	DIP-14	Enhanced low pwr/offset op amp.	1.05	.84	.64
275768CH	+	OPA37GP	DIP-8	Ultra-low noise, precision op amp.	2.45	2.19	1.97
275750CH	+	OPA37GU	SOIC-8	Ultra-low noise, precision op amp.	2.45	2.19	1.97
213129CH	+	TL052ACP	DIP-8	Enhanced JFET low offset op amp.	4.79	4.31	3.65
309981CH	+	TL052CD	SOIC-8	Dual Enhanced JFET prec. op amp.	1.49	1.21	.91
253243CH	+	TL054ACD	SOIC-14	Enhanced JFET low offset op amp.	5.39	4.83	4.35
213153CH	+	TL054ACN	DIP-14	Enhanced JFET low offset op amp.	1.99	1.82	1.65
213145CH	+	TL054CN	DIP-14	Enhanced JFET low offset op amp.	1.29	1.10	.82
213137CH	+	TL061ACP	DIP-8	Low power JFET input op amp.	.61	.52	.39
242106CH	+	TL061IP	DIP-8	Low power JFET op amp.	.79	.62	.45
252283CH	+	TL062ACD	SOIC-8	Low power JFET input op amp.	.66	.50	.37
33161CH	+	TL062CP	DIP-8	Low power JFET op amp. (VCC)	<del>\$.32</del> .27	.25	.20
253104CH	+	TL064BCD	SOIC-14	Low power JFET input op amp.	.69	.58	.47
253139CH	+	TL064BCN	DIP-14	Low power JFET input op amp.	.69	.58	.47
33179CH	+	TL064CN	DIP-14	Low power JFET input op amp.	.56	.45	.345
213081CH	+	TL071ACP	DIP-8	Low noise JFET input op amp.	.59	.50	.375
33187CH	+	TL071CP	DIP-8	Low noise JFET op amp.	.27	.25	.23
278264CH	+	TLC071CD	SOIC-8	Wide-band, high-output drive op amp.	1.09	.94	.75
278272CH	+	TLC071IP	DIP-8	Wide-band, high-output drive op amp.	1.19	.99	.80
213073CH	+	TL072ACP	DIP-8	Low noise JFET input op amp.	.53	.36	.26
253147CH	+	TL072BCP	DIP-8	Low noise JFET input op amp.	.70	.59	.48
193501CH	+	TL072CD	SOIC-8	Low noise JFET dual op amp.	.39	.33	.25
33195CH	+	TL072CP*	DIP-8	Low noise JFET dual op amp.	.26	.25	.24
278299CH	+	TLC072CD	SOIC-8	Wide-band, high-output drive op amp.	1.45	1.12	1.06
278281CH	+	TLC072CP	DIP-8	Wide-band, high-output drive op amp.	1.39	1.12	.84
213065CH	+	TL074BCN	DIP-14	Low noise JFET input op amp.	.51	.45	.415
193519CH	+	TL074CD	SOIC-8	Low noise JFET quad op amp.	.60	.42	.17

\* 10 pcs. in Linear series IC cabinet kit, pg 37



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Op Amps (Continued)

				Package (see pg 38)		
Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10 100
33216CH	◆	TL074CN*	DIP-14	Low noise JFET quad op amp.	\$ .48	\$ .43 \$ .345
278336CH	◆	TLC074CD	SOIC-14	Wide-band, high-output drive	1.95	1.64 1.43
278328CH	◆	TLC074CN	DIP-14	Wide-band, high-output drive	1.95	1.64 1.43
278352CH	◆	TLC080AIP	DIP-8	Wide-band, high-output drive	1.19	.96 .82
278344CH	◆	TLC080IIP	DIP-8	Wide-band, high-output drive	1.19	.96 .82
213057CH	◆	TL081ACP	DIP-8	JFET input op amp.	.51	.45 .415
253155CH	◆	TL081CD	SOIC-8	JFET input op amp.	.39	.30 .23
33232CH	◆	TL081CP	DIP-8	JFET input op amp.	.31	.30 .26
214076CH	◆	TL082ACP	DIP-8	JFET input op amp.	.30	.29 .28
253198CH	◆	TL082BCP	DIP-8	JFET input op amp.	.56	.42 .36
193527CH	◆	TL082CD	SOIC-8	JFET input dual op amp.	.45	.24 .14
33241CH	◆	TL082CP*	DIP-8	JFET input dual op amp.	.53	.40 .30
214084CH	◆	TL084ACN	DIP-14	JFET input op amp.	.49	.45 .38
253219CH	◆	TL084BCD	SOIC-14	JFET input op amp.	.70	.63 .58
193535CH	◆	TL084CD	SOIC-14	JFET input quad op amp.	.43	.41 .39
33267CH	◆	TL084CN*	DIP-14	JFET input quad op amp.	.43	.40 .37
282626CH	◆	LM124D	SOIC-14	Low power quad op amp. mil temp.	1.19	1.13 1.05
126818CH	◆	LM124J	CDIP-14	Low power quad op amp. mil temp.	2.19	1.69 1.31
276488CH	TI	OPA124U	SOIC-8	Low noise precision DIFET op amp.	8.45	7.59 6.85
276496CH	TI	OPA124UA	SOIC-8	Low noise precision DIFET op amp.	9.99	9.02 8.15
275856CH	TI	OPA130UA	SOIC-8	Low power precision FET input	2.99	2.69 2.42
243686CH	◆	OPA137PA	DIP-8	FET op amp.	\$1.75	1.39 1.31 1.25
243694CH	◆	OPA137UA	SOIC-8	FET input op amp.	1.59	1.48 1.41
302480CH	◆	LM158H	TO-5	Low power dual op amp	4.39	3.39 2.61
302412CH	◆	LM201AD	SOIC-8	Op amp industrial temp.	.52	.49 .47
302404CH	◆	LM201AN	DIP-8	Op amp industrial temp.	.62	.58 .54
302341CH	◆	LM224D	SOIC-14	Low power quad industrial temp.	.28	.265 .245
302359CH	◆	LM224J	CDIP-14	Low power quad industrial temp.	1.65	1.40 1.32
212118CH	◆	LM224N	DIP-14	Low power quad industrial temp.	.28	.26 .22
275813CH	TI	OPA234UA	SOIC-8	Low pwr precision snl supply	2.15	1.92 1.73
315230CH	◆	TLC252BCD	SOIC-8	LinCMOS dual op amp	2.19	1.95 1.48
315221CH	◆	TLC252BCP	DIP-8	LinCMOS dual op amp	2.19	2.16 2.14
302261CH	◆	LM258D	SOIC-8	Low pwr dual op amp industrial temp.	.26	.25 .23
212142CH	◆	LM258N	DIP-8	Low pwr dual op amp industrial temp.	.22	.20 .175
279742CH	TI	TLC271CD	SOIC-8	LinCMOS prog. low pwr op amp.	.83	.63 .48
279734CH	TI	TLC271CP	DIP-8	LinCMOS programmable low pwr	.55	.50 .45
279806CH	◆	TLC272CD	SOIC-8	LinCMOS precision dual op amp.	.79	.60 .45
143917CH	◆	TLC272CP	DIP-8	LinCMOS precision dual op amp.	.72	.55 .41
280233CH	TI	TLC272L2CD	SOIC-8	LinCMOS precision dual op amp.	.68	.57 .46
280225CH	TI	TLC272L2CP	DIP-8	LinCMOS precision dual op amp.	.56	.51 .42
280188CH	TI	TLC272M2CD	SOIC-8	LinCMOS precision dual op amp.	.68	.57 .46
280170CH	TI	TLC272M2CP	DIP-8	LinCMOS precision dual op amp.	.68	.57 .46
301313CH	TI	TLC272M4CN	DIP-14	LinCMOS precision quad op amp	.89	.87 .83
242000CH	◆	TLC274ACN	DIP-14	Quad precision op amp.	.79	.66 .60
242018CH	◆	TLC274BCN	DIP-14	Quad precision op amp.	1.05	.95 .86
242026CH	◆	TLC274CN	DIP-14	CMOS precision quad op amp	\$ .65	.53 .445
242034CH	◆	TLC274IN	DIP-14	Quad CMOS op-amp.	\$ .79	.72 .60 .49
280217CH	TI	TLC274L4CD	SOIC-14	LinCMOS precision quad op amp.	.81	.68 .55
280209CH	TI	TLC274L4CN	DIP-14	LinCMOS precision quad op amp.	.60	.55 .47
280161CH	TI	TLC274M4CD	SOIC-14	LinCMOS precision quad op amp.	.81	.68 .55
312784CH	◆	TL277CD	SOIC-8	LinCMOS precision dual op amp.	1.49	1.37 1.31
280241CH	◆	TLC277CP	DIP-8	LinCMOS precision dual op amp.	1.55	1.23 .98
280196CH	TI	TLC277L7CD	SOIC-8	LinCMOS precision dual op amp.	1.39	1.24 1.12
280145CH	TI	TLC277M7CD	SOIC-8	LinCMOS precision dual op amp.	1.39	1.24 1.12
280153CH	TI	TLC277M7CP	DIP-8	LinCMOS precision dual op amp.	1.39	1.24 1.12
245665CH	◆	LM301AH	TO-5/8	Operational amplifier	2.15	1.64 1.27
212151CH	◆	LM301AN	DIP-8	Operational amplifier	.47	.42 .38
245673CH	◆	LM308AH	TO-5/8	Precision op amp.	3.29	2.51 1.95
23464CH	◆	LM308N*	DIP-8	Precision op amp.	4.49	3.99 3.49
245681CH	◆	LM318M	SOIC-8	Precision high speed op amp.	1.15	.85 .64
23608CH	◆	LM318N	DIP-8	Precision hi-speed op amp.	.59	.54 .48
245702CH	◆	LM324AM	SOIC-14	Low power quad op amp.	.27	.23 .20
212169CH	◆	LM324AN	DIP-14	Low power quad op amp.	.25	.23 .20
86721CH	◆	LM324D	SOIC-14	Low power quad op amp.	.23	.20 .18
23683CH	◆	LM324N**	DIP-14	Low power quad op amp.	.28	.24 .21
192559CH	◆	LP324N	DIP-14	Micropower quad op amp.	.79	.59 .45

\*10 pcs. in Linear series IC cabinet kit, pg 37 \*\*20 pcs. in Linear series IC cabinet kit, pg 37

## Op Amps (Continued)

				Package (see pg 38)		
Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10 100
241963CH	◆	LMV324M	SOIC-14	Low voltage, general purpose	\$ .67	\$ .60 \$ .54
245438CH	◆	LF347BD	SOIC-14	Quad JFET input (wide bandwidth)	1.35	1.18 1.07
245420CH	◆	LF347M	SOIC-14	Quad JFET input (wide bandwidth)	.68	.61 .48
22904CH	◆	LF347N	DIP-14	Quad JFET input op amp. (wide band)	.36	.30 .28
275776CH	◆	OPA347PA	DIP-8	Micropower rail-to-rail op amp.	1.25	1.06 .86
246570CH	◆	LM348M	SOIC-14	Quad 741 op amp.	.77	.57 .42
23915CH	◆	LM348N	DIP-14	Quad 741 op amp. (UPC4741C)	.37	.30 .21
22912CH	◆	LF351N	DIP-8	BIFET op amp.	.39	.35 .29
245518CH	◆	LF353D	SOIC-8	Dual JFET input (wide bandwidth)	.37	.30 .23
22939CH	◆	LF353N*	DIP-8	Dual BIFET (comp. w/ TL082CP)	.39	.37 .35
193607CH	◆	LF356M	SOIC-8	JFET input op amp. (wide band)	.77	.56 .42
22971CH	◆	LF356N*	DIP-8	JFET input op amp. (wide band)	.79	.67 .49
22998CH	◆	LF357N	DIP-8	JFET input op amp. (wide band decomp.)	2.55	2.33 1.70
246588CH	◆	LM358AM	SOIC-8	Low power dual op amp.	.23	.22 .20
120862CH	◆	LM358AN	DIP-8	Low power dual (elect improv.)	.29	.25 .23
193615CH	◆	LM358D	SOIC-8	Low power dual op amp.	.21	.18 .13
23966CH	◆	LM358N*	DIP-8	Low power dual op amp.	.27	.23 .20
277106CH	◆	LMV358M	SOIC-8	Low-volt rail-to-rail output dual	.85	.64 .46
276736CH	◆	MAX410CPA	DIP-8	Sngl 28MHz low noise, low volt prec	5.29	4.20 3.79
119941CH	◆	LF411ACN	DIP-8	Low offset low drift JFET input	\$3.65	2.95 2.62 2.00
23018CH	◆	LF411CN*	DIP-8	Low offset drift JFET input op amp.	2.11	.90 .66
119950CH	◆	LF412ACN	DIP-8	Dual JFET op-amp.	3.79	3.16 2.44
193640CH	◆	LF412CD	SOIC-8	Low offset drift JFET input dual	.70	.37 .33
23026CH	◆	LF412CN*	DIP-8	Low offset drift JFET input dual	1.03	.76 .56
106681CH	◆	LF442CN	DIP-8	Dual low power JFET input op amp.	1.35	.99 .73
119984CH	◆	LF444ACN	DIP-14	Quad low power JFET input op amp	\$2.79	1.99 1.82 1.66
119992CH	◆	LF444CN	DIP-14	Quad low power JFET input op amp	1.45	1.09 .79
312805CH	ADI	OP467GP	DIP-14	Quad precision high speed op amp	12.09	11.48 10.91
312813CH	ADI	OP467GS	SOIC-16	Quad precision high speed op amp	9.89	8.52 7.49
276613CH	MAX	MAX474CSA	SOIC-8	Dual 10MHz single supply op amp.	5.09	4.03 3.63
276541CH	MAX	MAX492CPA	DIP-8	Dual upwr, snl supply rail-to-rail	5.09	4.05 3.63
276533CH	MAX	MAX492CSA	SOIC-8	Dual upwr, snl supply rail-to-rail	5.09	3.86 2.50
311773CH	MCH	MCP601-I/P	DIP-8	2.8MHz, 2.7V to 5.5V single supply CMOS	.60	.55 .525
311749CH	MCH	MCP602-I/P	DIP-8	Dual, 2.8MHz, 2.7V to 5.5V single supply CMOS	.72	.71 .68
311765CH	MCH	MCP602-I/SN	SOIC-8	Dual, 2.8MHz, 2.7V to 5.5V single supply CMOS	.77	.71 .68
311731CH	MCH	MCP603-I/P	DIP-8	Single w/ CS, 2.8MHz, 2.7V to 5.5V single CMOS	.63	.58 .551
311239CH	MCH	MCP6S21-I/P	DIP-8	1-ch PGA low-gain single ended rail-to-rail I/O	1.69	1.65 1.60
311255CH	MCH	MCP6S22-I/P	DIP-8	2-ch PGA low-gain single-ended rail-to-rail I/O	1.95	1.89 1.82
311247CH	MCH	MCP6S22-I/SN	SOIC-8	2-ch PGA low-gain single-ended rail-to-rail I/O	2.09	1.99 1.89
310367CH	ADI	AD626AN	DIP-8	Low-cost single supply diff. amplifier	5.75	5.69 5.35
313314CH	ADI	AD626AR	SOIC-8	Low-cost single supply diff. amplifier	5.95	5.62 5.34
311221CH	MCH	MCP6S28-I/P	DIP-8	8-ch PGA low-gain single-ended rail-to-rail I/O	3.35	3.18 3.03
267266CH	◆	LMC660CM	SOIC-14	CMOS quad operational amplifier	1.45	1.08 .81
143976CH	◆	LMC660CN	DIP-14	CMOS quad operational amplifier	1.65	1.23 .91
120926CH	◆	LM675T	TO-220/5	Power op amplifier	6.19	5.25 4.39
24491CH	◆	LM733CN	DIP-14	Differential amplifier	1.15	.99 .89
24521CH	◆	LM741CH	TO-5/8	Op amplifier	2.75	2.10 1.62
24539CH	◆	LM741CN**	DIP-8	Op amplifier (ULN2151)	.29	.25 .19
24563CH	◆	LM747CN	DIP-14	Dual 741 op amplifier	4.19	3.85 3.39
299938CH	◆	LM747H	TO-10	Dual op amp	3.79	3.29 3.07
311132CH	ADI	AD811AN	DIP-8	High performance video op amp	5.75	5.24 4.84
311087CH	ADI	AD812AN	DIP-8	Dual low-power current feedback	5.29	5.19 4.92
277085CH	NSC	LMV824M	SOIC-14	5MHz quad low pwr, low volt, rail-to-rail	1.09	.97 .92
246668CH	NSC	LM837M	SOIC-14	Low noise quad operational amp.	1.02	.80 .75
143896CH	NSC	LM837N	DIP-14	Low-noise quad operational amp.	1.35	1.12 .82
239222CH	LTC	LT1001CN8	DIP-8	Precision op amplifier	3.25	2.75 2.50
239231CH	LTC	LT1002CN	DIP-14	Dual, matched precision op amp	4.75	3.22 2.74

\* Blue Part No. = Limited Quantity Available

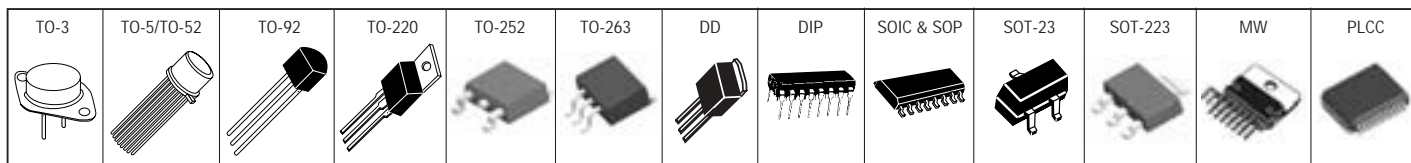
\* 10 pcs. in Linear series IC cabinet kit, pg 37 \*\* 20 pcs. in Linear series IC cabinet kit, pg 37

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## Manufacturer Cross Reference Table

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Analog Devices	ADI	Linear Technology	LTC	Microchip	MCH	On Semi	ON	Texas Instruments	TI
Anachip	ANA	Maxim Corporation	MAX	National Semiconductor	NSC	ST Micro	ST	Jameco Value Offering	+

## Op Amps (Continued)

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
239214CH	LTC	LT1006CN8	DIP-8	Precision op-amplifier .....	\$2.65	\$1.92	\$1.73
300231CH	LTC	LT1007CS8	SOIC-8	Low-noise, high speed precision .....	3.75	2.53	2.00
239273CH	LTC	LT1012CN8	DIP-8	Picoamp input curr, microvolt offset, low noise .....	4.35	3.32	2.57
239169CH	+	LT1013CP	DIP-8	Dual precision op amplifier .....	1.25	1.10	1.00
252005CH	+	LT1013DD	SOIC-8	Dual precision op amplifier .....	.79	.66	.54
239177CH	+	LT1014DN	DIP-14	Quad precision op amplifier .....	3.29	2.99	2.81
300193CH	LTC	LTC1050CN8	DIP-8	Precision zero-drift w/ int. cap .....	3.65	2.48	2.09
300169CH	LTC	LTC1051CN8	DIP-8	Dual precision zero-drift w/ int. cap .....	7.45	7.25	6.91
193682CH	+	LM1458M	SOIC-8	Dual op amplifier .....	.26	.22	.16
23131CH	+	LM1458M*	DIP-8	Dual op amplifier .....	.29	.26	.20
302498CH	+	LM1815N-ND	DIP-14	Adaptive variable sensor amp .....	3.19	2.45	1.89
310172CH	TI	TLE2021CD	SOIC-8	Excalibur hi-speed, low-pwr prec .....	1.05	.86	.79
280129CH	TI	TLE2021CP	DIP-8	Excalibur hi speed low pwr prec .....	1.09	.92	.74
310236CH	TI	TLE2022CD	SOIC-8	Excalibur hi-speed, low-pwr prec .....	1.69	1.39	1.30
280111CH	TI	TLE2022CP	DIP-8	Excalibur hi speed low pwr prec .....	1.45	1.30	1.17
280102CH	TI	TLE2024CDW	SOIC-16	Excalibur hi speed low pwr prec .....	2.85	2.56	2.29
280090CH	TI	TLE2024CN	DIP-14	Excalibur hi speed low pwr prec .....	2.79	2.53	2.28
310658CH	TI	TLE2027CD	SOIC-8	Excalibur hi-speed, low-pwr prec .....	1.75	1.65	1.55
310682CH	TI	TLE2072CD	SOIC-8	Excalibur low-noise hi-speed JFET input ..	2.05	1.79	1.73
310674CH	TI	TLE2072CP	DIP-8	Excalibur low-noise hi-speed JFET input ..	1.89	1.85	1.77
275848CH	TI	OPA2131UJ	SOIC-8	General purpose FET-input op amp. ....	2.89	2.59	2.34
279996CH	TI	TLV2450CP	DIP-8	Rail-to-rail I/O op amp. w/ shutdown ..	1.25	1.01	.75
279988CH	TI	TLV2451CD	SOIC-8	Rail-to-rail I/O op amp. w/ shutdown ..	1.29	1.15	1.04
279970CH	TI	TLV2451CP	DIP-8	Rail-to-rail I/O op amp. w/ shutdown ..	1.15	1.00	.90
272209CH	TI	TLV2454CD	SOIC-14	Rail-to-rail I/O op amp. w/ shutdown ..	1.95	1.76	1.59
279961CH	TI	TLV2454CN	DIP-14	Rail-to-rail I/O op amp. w/ shutdown ..	2.05	1.83	1.64
310308CH	TI	TLV2474CD	SOIC-14	Quad low-pwr rail-to-rail input/output w/ shutdown ..	2.09	1.79	1.73
279945CH	TI	TLV2474CN	DIP-14	2.8MHz rail-to-rail I/O hi drive w/shdwn ..	2.05	1.74	1.57
279953CH	TI	TLV2474IN	DIP-14	2.8MHz rail-to-rail I/O hi drive w/shdwn ..	2.15	1.83	1.64
315096CH	+	TLC27L2BCD	SOIC-8	LinCMOS precision dual op amp .....	.75	.69	.68
315088CH	+	TLC27L2BCP	DIP-8	LinCMOS precision dual op amp .....	.69	.58	.47
315061CH	+	TLC27L4ACD	SOIC-14	LinCMOS precision quad op amp .....	.79	.66	.538
315053CH	+	TLC27L4ACND	DIP-14	LinCMOS precision quad op amp .....	.71	.60	.57
245606CH	+	LM2902M	SOIC-14	Low power quad op amplifier .....	.27	.24	.19
57007CH	+	LM2902N	DIP-14	Low power quad op amplifier .....	.25	.23	.22
245622CH	+	LM2904M	SOIC-8	Low power dual op amplifier .....	.25	.23	.20
121005CH	+	LM2904N	DIP-8	Low power dual op amplifier .....	.22	.20	.19
278141CH	TI	THS3001CD	SOIC-8	420MHz hi speed curr. feedback .....	5.89	5.32	4.79
12116CH	+	CA3080E	DIP-8	Op transconductance amp. (100135) ..	.99	.89	.80
12183CH	+	CA3130E	DIP-8	CMOS op amplifier .....	.81	.78	.71
12204CH	+	CA3140E	DIP-8	Bi-MOS op amplifier .....	.59	.55	.51
246721CH	+	MC3303D	SOIC-14	Quad op amplifier .....	.43	.32	.25
212193CH	+	MC3403N	DIP-14	Quad bipolar op amplifier .....	.26	.24	.22
246617CH	+	LM3900D	SOIC-14	Quad amplifier .....	.75	.63	.52
24168CH	+	LM3900N	DIP-14	Quad amplifier .....	.77	.65	.53
239185CH	TI	THS4031CD	SOIC-8	100MHz op-amp .....	4.09	3.48	2.61
278150CH	TI	THS4032CD	SOIC-8	100MHz low noise, hi speed amp .....	6.49	5.31	5.26
278176CH	TI	THS4082CD	SOP-8	175MHz low noise, hi speed amp .....	5.69	5.14	4.63
278168CH	TI	THS4082ID	SOP-8	175MHz low noise, hi speed amp .....	5.89	5.32	4.79
279929CH	TI	TLV4112CD	SOIC-8	High output drive w/ shutdown .....	1.95	1.58	1.35
29356CH	+	RC4136N	DIP-14	Quad op amp. (XR4136) .....	.74	.68	.62
275741CH	+	OPA4137PA	DIP-14	Low cost FET input op amp. ....	2.35	2.11	1.90
121072CH	+	LM4250CN	DIP-8	Programmable op amp. ....	\$1.39	1.15	.86
251256CH	TI	TLC4501ACD	SOIC-8	Precision CMOS rail-to-rail output .....	2.49	2.35	2.09

\*10 pcs. in Linear series IC cabinet kit, pg 37

## Op Amps (Continued)

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
300767CH	TI	TLC4501AID	SOP-8	Precision CMOS rail-to-rail output ...	\$2.59	\$2.20	\$1.73
251264CH	TI	TLC4501CD	SOIC-8	Precision CMOS rail-to-rail output .....	2.35	2.25	2.02
251281CH	TI	TLC4502AID	SOIC-8	Precision CMOS rail-to-rail output .....	3.69	3.58	3.45
310092CH	TI	TLC4502AQDSOP-8		Self-calibrating prec CMOS rail-to-rail output ..	3.89	3.68	3.45
251272CH	TI	TLC4502ID	SOIC-8	Precision CMOS rail-to-rail output .....	3.75	3.35	3.01
254861CH	+	KA4558	DIP-8	Dual op amp. ....	.41	.37	.33
251150CH	+	MC4558CD	SOIC-8	Wide bandwidth dual bipolar op amp. ....	.31	.29	.27
251125CH	+	MC4558CN	DIP-8	Wide bandwidth dual bipolar op amp. ....	.31	.29	.27
311933CH	+	EL5100IS	SOIC-8	200MHz slew enhanced volt feedback .....	2.45	2.30	2.10
311941CH	+	EL5106IS	SOIC-8	350MHz fixed gain amplifier w/ enable .....	2.29	2.04	1.81
311925CH	+	EL5108IS	SOIC-8	450MHz fixed gain amplifier w/ enable .....	2.55	2.24	1.98
252970CH	+	NE5532AP	DIP-8	Dual low noise op amp. ....	.69	.58	.47
27385CH	+	NE5532N*	DIP-8	Dual low noise op amp. ....	.72	.55	.415
27406CH	+	NE5534	DIP-8	Low noise op amp. ....	.78	.66	.54
193746CH	+	NE5534D	SOIC-8	Low noise op amp. ....	.51	.47	.445
311001CH	MCH	MCP6002-I/P	DIP-8	1MHz bandwidth low-power op amp ...	.45	.42	.40
310990CH	MCH	MCP6002-1/SN	SOIC-8	1MHz bandwidth low-pwr op amp .....	.43	.415	.40
311714CH	MCH	MCP6021-1/SN	SOIC-8	2.5V, 10MHz rail-to-rail input/output ..	1.27	1.16	1.10
311722CH	MCH	MCP6021-I/P	DIP-8	2.5V, 10MHz rail-to-rail input/output ..	1.27	1.24	1.18
266950CH	NSC	LMC60351BP	BPA-8	Low pwr 2.7V snlgl supply CMOS .....	1.59	1.19	.87
301241CH	NSC	LMC6035IM	SOIC-8	Low pwr 2.7V single supply CMOS .....	2.05	1.89	1.85
267039CH	NSC	LMC6041IN	DIP-8	CMOS single micropower op amp. ....	1.69	1.25	.93
302121CH	NSC	LM6132AIM	SOIC-8	Dual low pwr rail-to-rail in/out, 10MHz ..	3.59	2.76	2.14
302105CH	NSC	LM6132BIM	SOIC-8	Dual low pwr rail-to-rail in/out, 10MHz ..	2.75	2.08	1.87
302113CH	NSC	LM6132BIN	DIP-8	Dual low pwr rail-to-rail in/out, 10MHz ..	2.69	2.25	2.09
302009CH	NSC	LM6134AIM	SOIC-14	Quad low pwr rail-to-rail in/out, 10MHz ..	3.85	3.19	2.95
302084CH	NSC	LM6134BIM	SOIC-14	Quad low pwr rail-to-rail in/out, 10MHz ..	3.15	2.59	2.45
302076CH	NSC	LM6134BIN	DIP-14	Quad low pwr rail-to-rail in/out, 10MHz ..	3.15	2.59	2.45
302068CH	NSC	LM6142AIM	SOIC-8	Dual rail-to-rail in/out, 17MHz .....	4.65	3.85	3.62
301997CH	NSC	LM6144BIM	SOIC-14	Quad rail-to-rail in/out, 17MHz .....	5.55	4.59	4.25
301989CH	NSC	LM6152ACM	SOIC-8	Dual rail-to-rail in/out, 75MHz GBW .....	3.99	3.29	3.10
301891CH	NSC	LM6171AIM	SOIC-8	Hi speed, low pwr, low distortion volt feedback ..	2.99	2.49	2.35
301882CH	NSC	LM6171BIM	SOIC-8	Hi speed, low pwr, low distortion volt feedback ..	2.59	2.14	2.01
301903CH	NSC	LM6171BIN	DIP-8	Hi speed, low pwr, low distortion volt feedback ..	2.59	1.97	1.53
311992CH	NSC	LM6181M	SOIC-8	100mA, 100MHz current feedback .....	2.35	1.79	1.70
301874CH	NSC	LM6181IN	DIP-8	100mA, 100MHz current feedback .....	2.79	2.19	1.79
267063CH	NSC	LMC6442AIM	SOIC-8	Dual $\mu$ pwr, snlgl-supply rail-to-rail .....	2.39	2.06	1.85
301436CH	NSC	LMC6442IM	SOIC-8	Dual micropower rail-to-rail output single supply ..	2.55	1.92	1.62
301364CH	NSC	LMC6442IN	DIP-8	Dual micropower rail-to-rail output single supply ..	2.75	2.05	1.75
267119CH	NSC	LMC6462AIM	SOIC-8	Dual $\mu$ pwr, snlgl-supply rail-to-rail I/O CMOS ..	2.39	2.16	1.95
126906CH	NSC	LMC6462AIN	DIP-8	$\mu$ pwr rail-to-rail I/O CMOS op amp. ....	2.59	2.25	2.02
126893CH	NSC	LMC6482AIM	DIP-8	CMOS dual rail-to-rail input/output .....	2.09	1.56	1.16
251168CH	NSC	LMC6482AIM	SOIC-8	CMOS dual rail-to-rail input/output .....	2.05	1.56	1.17
267127CH	NSC	LMC6482IM	SOIC-8	CMOS dual rail-to-rail I/O op amp. ....	1.69	1.27	.95
267223CH	NSC	LMC6482IN	DIP-8	CMOS dual rail-to-rail I/O op amp. ....	1.89	1.40	1.04
267240CH	NSC	LMC6484AIM	SOIC-14	CMOS quad rail-to-rail I/O op amp. ....	3.49	2.69	2.05
301356CH	NSC	LMC6484AIN	DIP-14	CMOS quad rail-to-rail in/out op amp .....	4.09	3.13	2.42
267258CH	NSC	LMC6484IM	SOIC-14	CMOS quad rail-to-rail I/O op amp. ....	3.79	3.41	2.35
311811CH	NSC	LMH6702MA	SOIC-8	Single ultra low-distortion, wideband ..	3.25	2.48	2.35
311829CH	NSC	LMH6702MF	SOT-23/5	Single ultra low-distortion, wideband ..	3.25	2.49	1.92
251871CH	NSC	LMC7101AIM5	SOT-23/5	Tiny low pwr w/ rail-to-rail I/O .....	1.69	1.25	.93
251900CH	NSC	LMC7111AIM	DIP-8	Tiny CMOS op amp w/ rail-to-rail I/O ..	1.55	1.14	.84
301807CH	NSC	LM7171AIM	SOIC-8	Hi speed, hi output current volt feedback ..	2.89	2.25	1.98
301794CH	NSC	LM7171AIN	DIP-8	Hi speed, hi output current volt feedback ..	2.89	2.25	1.98

\*10 pcs. in Linear series IC cabinet kit, pg 37



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Op Amps (Continued)

				Package (see pg 40)		
Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10 100
301751CH	NSC	LM7171BIM	SOIC-8	Hi speed, hi output current volt feedback	\$2.55	\$2.12 \$1.98
301823CH	NSC	LM7171BIN	DIP-8	Hi speed, hi output current volt feedback	2.55	1.96 1.75
301840CH	NSC	LM7121IM	SOIC-8	235MHz tiny low pwr volt feedback	2.59	1.95 1.49
301701CH	NSC	LM7301IM	SOIC-8	Low pwr rail-to-rail in/pout, 4MHz GBW	2.09	1.56 1.17
301655CH	NSC	LM7301IM5	SOT-23/5	Low pwr rail-to-rail in/pout, 4MHz GBW	1.99	1.51 1.12
315281CH	+	ICL7611DCBA	SOIC-8	1.4MHz LP CMOS op amp	.85	.83 .79
315272CH	+	ICL7611DCPA	DIP-8	1.4MHz LP CMOS op amp	.76	.63 .58
311159CH	ADI	AD8002AR	SOIC-8	Dual 600MHz, 50mW, curr. feedback	4.85	4.19 3.95
312776CH	ADI	AD8042AR	SOIC-8	Low-cost, high speed rail-to-rail	4.65	3.58 2.97
312750CH	ADI	AD8052AR	SOIC-8	Low-cost, high speed rail-to-rail	2.55	2.08 1.75
312768CH	ADI	AD8052ARM	MSOP-8	Low-cost, high speed rail-to-rail	3.35	2.54 2.11
255257CH	ADI	AD8091AR	SOIC-8	Low cost high speed rail-to-rail	1.35	1.20 1.08
255231CH	ADI	AD8092ARM	MSOP-8	Low cost high speed rail-to-rail	1.45	1.30 1.18
311095CH	ADI	AD8307AN	DIP-8	Low-cost DC-500MHz 92dB logarithmic	13.29	12.63 12.00
311116CH	ADI	AD8307AR	SOP-8	Low-cost DC-500MHz 92dB logarithmic	9.45	7.85 7.75
255206CH	ADI	AD8510AR	SOIC-8	Prec. low noise/input bias curr. JFET input	2.45	2.18 1.96
279591CH	ADI	AD8515ART	SOT-23/5	1.8V low pwr CMOS rail-to-rail I/O	.98	.83 .67
192532CH	+	LM13700N	DIP-16	Dual op transcon. w/ diodes/buffer	1.49	1.19 .79
277704CH	+	MC33202P	DIP-8	Low-voltage rail-to-rail op amp.	1.15	.97 .78
251117CH	+	MC34072D	SOIC-8	Single supply 3V-44V op amp.	.91	.85 .79
251061CH	+	MC34072P	DIP-8	Single supply 3V-44V op amp.	.91	.85 .79

## Linear Series

				Package (see pg 40)		
Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10 100
25751CH	+	MF10CN	DIP-20	General purpose dual active filter	\$3.09	\$2.37 \$1.83
16301CH	+	DS0026CN	DIP-8	Dual mos clk. driver (5MHz)(TC426CPA)	4.95	4.45 3.99
239281CH	+	DG201BDJ	DIP-16	Quad analog switch	1.35	1.26 1.11
239290CH	+	DG202BDJ	DIP-16	Quad analog switch	<del>\$2.75</del> 1.99	1.90 1.81
239311CH	+	DG211BDJ	DIP-16	Quad analog switch	1.36	1.23 1.10
239329CH	+	DG211CJ	DIP-16	SPST quad channel analog switch	1.99	1.75 1.49
302332CH	+	LM231AN	DIP-8	Precision voltage to frequency con	7.35	6.99 6.62
302316CH	+	LM231N	DIP-8	Precision voltage to frequency con	5.29	4.25 3.84
302324CH	+	LM234Z-3	TO-92	3-terminal adjustable current source	2.55	1.95 1.50
302308CH	+	LM234Z-6	TO-92	3-terminal adjustable current source	1.65	1.22 .91
302295CH	+	LM236D	SOIC-8	2.5V voltage reference	.77	.72 .67
291080CH	+	LM285BYZ-1.2	TO-92	1.2V voltage reference diode, 1% tol.	1.75	1.32 1.11
297801CH	+	LM285BYZ-2.5	TO-92	2.5V voltage reference diode	1.89	1.46 1.14
312354CH	+	LM285M	SOIC-8	Adjustable micropower volt. reference	.96	.71 .527
312362CH	+	LM285M-1.2	SOIC-8	1.2V micropower volt. reference diode	.79	.71 .52
312371CH	+	LM285M-2.5	SOIC-8	2.5V micropower volt. reference diode	.79	.71 .527
291055CH	+	LM285Z-1.2	TO-92	1.2V voltage reference, 20mA	.47	.382 .336
291071CH	+	LM285Z-2.5	TO-92	2.5V voltage reference, 10mA	.67	.64 .63
245403CH	ST	L298N	MW-15	Dual full-bridge driver (MULTIWATT-15 pkg.)	2.95	2.55 2.35
245446CH	+	MAX301CPE	DIP-16	Precision dual hi speed ana.switch	4.05	3.22 2.81
245456CH	+	MAX301CSE	SOIC-16	Precision dual hi speed analog switch	4.59	3.69 3.45
245462CH	+	MAX303CPE	DIP-16	Precision dual hi speed analog switch	8.79	6.91 6.22
277051CH	+	MAX303CSE	SOIC-16	Precision dual hi speed ana. switch	10.65	8.36 7.53
297828CH	+	LM331AN	DIP-8	5V precision voltage-frequency con	6.75	6.39 6.08
23721CH	+	LM331N	DIP-8	Prec. volt to freq. convtr. (150ppm/°C)	2.19	1.69 1.30
245729CH	+	LM334M	SOIC-8	3-terminal adjustable current source	1.12	.83 .61
23739CH	+	LM334Z	TO-92	Adjust current source	.72	.65 .47
291135CH	+	LM336BZ-2.5	TO-92	2.5V voltage reference diode	1.55	1.16 .87
297676CH	+	LM336BZ-5.0	TO-92	5V voltage reference diode	1.55	1.16 .87
193578CH	+	LM336M-2.5	SOIC-8	Prec. 2.5V shunt regulator diode	<del>\$4.39</del> .96	.72 .53
23771CH	+	LM336Z-2.5	TO-92	Voltage reference (2.5V)	.50	.46 .245
120871CH	+	LM385BZ-1.2	TO-92	Volt. ref. diode (1.2±1.5%)	.51	.45 .39
120889CH	+	LM385BZ2.5	TO-92	Volt. ref. diode (2.5V±1.5%)	.51	.47 .42
24117CH	+	LM385Z12	TO-92	Micropower volt. ref. diode (1.2V)	.49	.45 .40
24109CH	+	LM385Z-2.5	TO-92	Volt. ref. diode (2.5V±3%)	.57	.55 .395
23000CH	+	LF398N	DIP-8	Sample and hold circuit	1.09	1.00 .75
309833CH	+	DG403DJ	DIP-16	Improved, dual, high-speed analog switch	3.75	3.54 3.31
245454CH	+	DG403DY	SOIC-16	Improved dual hi speed analog switch	1.69	1.14 1.02
245489CH	+	DG405DJ	DIP-16	Improved dual hi speed analog switch	3.25	2.97 2.56
256541CH	+	DG406DJ	DIP-28	Imprvd 16-ch/dual 8-ch CMOS analog mux.	4.15	4.05 3.89
272161CH	+	DG407DJ	DIP-28	Imprvd 16-ch/dual 8-ch CMOS analog mux.	5.69	5.11 4.61
288227CH	+	DG407DN	PLCC-28	8-channel analog multiplexer	6.69	6.34 5.45

## Linear Series (Continued)

				Package (see pg 40)		
Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10 100
256532CH	+	DG408DJ	DIP-16	Imprvd 8-ch/dual 4-ch CMOS analog mux.	\$1.65	\$1.55 \$1.46
279582CH	+	DG408DY	SOIC-16	Imprvd 8-ch/dual 4-ch CMOS analog mux.	1.59	1.55 1.27
288243CH	+	DG409BN	DIP-16	4-channel analog multiplexer	4.25	4.09 3.87
288260CH	+	DG409DJ	DIP-16	4-channel analog multiplexer	1.65	1.35 1.27
279574CH	+	DG409DY	SOIC-16	Imprvd 8-ch/dual 4-ch CMOS analog mux.	1.55	1.47 1.27
243643CH	+	DG411DJ	DIP-16	Quad precision analog switch	1.75	1.65 1.50
243651CH	+	DG411DY	SOIC-16	Quad analog switch	1.69	1.66 1.59
256516CH	+	DG412DJ	DIP-16	Improved quad SPST analog switch	2.39	1.61 1.06
245358CH	+	DG412DY	SOIC-16	Improved quad SPST analog switch	1.55	1.39 1.28
272137CH	+	DG413DY	SOIC-16	Improved quad SPST analog switch	1.49	1.43 1.37
279540CH	+	DG419DJ	DIP-8	Improved SPST/SPDT analog switch	1.95	1.73 1.69
246561CH	+	DG419DY	SOIC-8	Improved SPST/SPDT analog switch	1.19	1.12 1.08
33347CH	+	TL431CLP	TO-92	Program precision reference	.31	.265 .19
279558CH	+	DG441DJ	DIP-16	Improved quad SPST analog switch	1.65	1.48 1.22
256495CH	+	DG442DJ	DIP-16	Improved quad SPST analog switch	1.65	1.48 1.35
256508CH	+	DG442DY	SOIC-16	Improved quad SPST analog switch	1.19	1.114 1.10
256487CH	+	DG444DJ	DIP-16	Improved quad SPST analog switch	1.39	1.30 1.28
256479CH	+	DG444DY	SOIC-16	Improved quad SPST analog switch	1.25	1.19 1.09
256452CH	+	DG445DJ	DIP-16	Improved quad SPST analog switch	1.39	1.26 1.10
256444CH	+	DG445DY	SOIC-16	Improved quad SPST analog switch	1.39	1.30 1.24
33355CH	+	TL494CN	DIP-16	Control. ckt. pulse width modulated	.43	.325 .265
288391CH	+	DG506AKN	DIP-28	1-channel analog multiplexer	10.49	9.99 9.49
86799CH	+	LM555CM	SOIC-8	Timer (NE555D)	.24	.21 .185
27422CH	+	LM555CN**	DIP-8	Timer (MC1455P/NE555V)	.27	.23 .19
246676CH	+	LMC555CM	SOIC-8	CMOS 555 timer	.65	.47 .35
126797CH	+	LMC555CN*	DIP-8	CMOS 555 timer	.54	.49 .44
193658CH	+	LM556CM	SOIC-14	Dual 555 timer	.75	.41 .26
24328CH	+	LM556N*	DIP-14	Dual 555 timer	.77	.57 .42
27457CH	+	NE558N	DIP-16	Quad timer (NE558C)	.68	.62 .52
27473CH	+	NE564N	DIP-16	High frequency phase locked loop	1.95	1.49 1.05
24352CH	+	LM565N	DIP-14	Phased locked loop	1.59	1.20 .90
193666CH	+	LM567CM	SOIC-8	Tone decoder	<del>\$1.35</del> .33	.30 .28
24395CH	+	LM567CN	DIP-8	Tone decoder	.48	.45 .33
277691CH	+	LMC567CM	SOIC-8	Low-power tone decoder	1.65	1.29 .97
246650CH	+	LMC567CN	DIP-8	Tone decoder	1.45	1.18 1.05
243387CH	+	LM568CN	DIP-8	Low power phase-locked loop	<del>\$4.99</del> 1.65	.88 .80
27490CH	+	NE571N	DIP-16	Compander, subscriber	3.29	2.99 2.69
287700CH	+	AD580JH	TO-52	2.5V volt. reference, high precision	3.45	2.89 2.42
287734CH	+	AD580LH	TO-52	2.5V volt. reference, high precision	9.49	8.05 6.91
287785CH	ADI	AD581KH	TO-5/3	10V volt. ref., hi prec., 10mV tolerance	8.89	7.54 6.32
287814CH	ADI	AD584JH	TO-99	Prog. volt. reference, 30mV tol.	6.85	5.65 4.72
288155CH	ADI	AD584KN	DIP-8	Prog. volt. reference, 11mV tol.	10.69	10.15 9.63
312012CH	ADI	AD586JN	DIP-8	High precision 5V reference	5.29	4.29 3.65
312004CH	ADI	AD586KR	SOIC-8	High precision 5V reference	7.39	5.98 5.09
115174CH	ADI	AD620AN	DIP-8	Low cost instrument amplifier	16.15	14.85 13.55
310383CH	ADI	AD622AR	SOIC-8	Low-cost instrument amplifier	5.55	4.25 3.94
115182CH	ADI	AD633JN	DIP-8	Low cost analog multiplier	7.75	6.97 6.28
241912CH	+	TC646VOA	SOIC-8	3-5V, PWM fan controller	2.55	2.27 2.05
242131CH	+	TC648VPA	DIP-8	3-5V, PWM fan controller	2.59	2.32 2.08
276509CH	+	MAX660CSA	SOIC-8	CMOS monolithic voltage converter	6.65	5.06 3.42
312194CH	+	MAX662ACPA	DIP-8	Pos. 12V 30mA flash memory prog. supply	4.05	3.37 3.20
312186CH	+	MAX662ACSA	SOIC-8	Pos. 12V 30mA flash memory prog. supply	4.09	2.79 2.20
312151CH	MAX	MAX724CCK	TO-220/5	5A/2A step-down PWM switch mode DC-DC reg	10.75	9.13 8.67
25435CH	+	MC846P	DIP-14	Quad 2-input gate	3.95	2.95 2.25
287769CH	ADI	AD851JH	TO-5/3	10V voltage reference, high precision	6.75	6.39 6.05
315969CH	+	TC962COE	SOIC-16	High current charge pump DC-DC con.	2.25	2.23 2.00
316515CH	+	TC962CPA	DIP-8	High current charge pump DC-DC con.	2.49	2.37 2.25


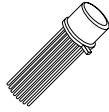
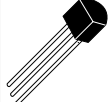
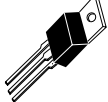


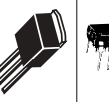
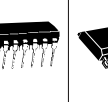
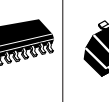
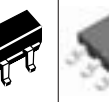



\*10 pcs. in Linear series IC cabinet kit, pg 37 \*\*20 pcs. in Linear series IC cabinet kit, pg 37

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 258.



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TO-3	TO-5/TO-52	TO-92	TO-220	TO-252	TO-263	DD	DIP	SOIC & SOP	SOT-23	SOT-223	MW	PLCC
												

## Manufacturer Cross Reference Table

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Analog Devices	ADI	Linear Technology	LTC	Microchip	MCH	On Semi	ON	Texas Instruments	TI
Anachip	ANA	Maxim Corporation	MAX	National Semiconductor	NSC	ST Micro	ST	Jameco Value Offering	+

## Linear Series (Continued)

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
239257CH	+	LT1004CZ-1.2	TO-92	1.2V, micropower voltage reference ..	\$ .68	\$ .57	\$ .46
239265CH	+	LT1004CZ-2.5	TO-92	2.5V, micropower voltage reference ..	.68	.52	.40
301541CH	+	LT1009CLP	TO-92	2.5V voltage reference diode .....	.62	.52	.42
300177CH	LTC	LT1009CZ	TO-92	2.5V voltage reference diode .....	2.15	1.45	1.25
300214CH	LTC	LTC1043CN	DIP-18	Dual prec. instr. switch cap. building blocks ..	4.65	3.15	2.75
312258CH	MAX	MAX1044CPA	DIP-8	Switched capacitor volt. converters ..	2.35	1.96	1.86
312240CH	MAX	MAX1044CSA	SOIC-8	Switched capacitor volt. converters ..	2.85	2.38	2.26
300206CH	LTC	LTC1046CS8	SOIC-8	Inductorless 5V to -5V converter .....	4.79	3.22	2.79
278184CH	+	TL1451ACN	DIP-16	Dual pulse-width-mod. control circuit .....	1.79	1.45	1.11
118578CH	+	MC1495L	DIP-14	Linear four quadrant multiplier .....	9.95	8.95	8.05
23211CH	+	LM1496N	DIP-14	Balanced mod./demodulator (MC1496P) ..	.65	.60	.54
311790CH	MCH	MCP1252-33X50	MSOP-8	Low-noise pos. regulated charge pump ...	2.25	2.17	2.07
314261CH	ANA	AP1501K5	TO-263/5	150kHz, 5A buck PWM DC/DC con. ....	2.59	2.02	1.54
314296CH	ANA	AP1501-50K5	TO-263/5	150kHz, 3A buck PWM DC/DC con. ....	4.05	3.15	2.39
34278CH	+	ULN2003AN*	DIP-16	Hi-volt/curr. darl. transistor array .....	.39	.32	.28
193826CH	+	ULN2003AD	SOIC-16	Hi-volt/curr. darl. transistor array .....	.39	.35	.29
34294CH	+	ULN2004AN	DIP-16	Hi-volt/curr. darl. trans. array (XR2204CP) ..	.35	.30	.25
241891CH	+	ML2035CP	DIP-8	Serial input prog. sine wave generator ....	7.89	6.15	5.53
241883CH	+	ML2036CP	DIP-14	5V, 50kHz prog. sine wave generator ....	16.65	14.96	13.47
34972CH	+	XR2206CP	DIP-16	Monolithic function generator .....	3.59	3.29	2.99
34999CH	+	XR2211N	DIP-14	FSK demodulator/tone decoder .....	1.79	1.59	1.39
280081CH	+	TLE2425CD	SOIC-8	Precision virtual ground .....	1.29	1.05	.80
280022CH	+	TLE2426CD	SOIC-8	Rail splitter precision virtual ground ..	1.19	.91	.82
280073CH	+	TLE2426CLP	TO-92	Rail splitter precision virtual ground ..	1.19	.91	.82
34315CH	+	ULN2803A*	DIP-18	Hi-volt. hi-curr. darl. transistor array ....	.69	.59	.49
123625CH	+	LM2907N-8	DIP-8	Frequency to volt converter .....	1.55	1.39	.92
23317CH	+	LM2907N	DIP-14	Frequency to volt converter .....	1.39	1.11	.83
245631CH	+	LM2917M	SOIC-14	Frequency to voltage converter .....	1.99	1.49	1.40
23350CH	+	LM2917N-8	DIP-8	Frequency to volt converter .....	1.89	1.46	1.31
23341CH	+	LM2917N-14	DIP-14	Frequency to volt converter .....	1.79	1.49	1.29
12079CH	+	CA3046N	DIP-14	NPN transistor array (ULN2046) .....	.45	.42	.37
12124CH	+	CA3081N	DIP-16	Common emitter NPN array (ULN2081) ....	.69	.59	.54
12159CH	+	CA3086N	DIP-14	Transistor array NPN (ULN2086) .....	.56	.52	.46
12247CH	+	CA3162E	DIP-16	Dual slope & rate analog/digital con .....	6.79	6.14	5.53
31974CH	+	SG3524N	DIP-16	Regulating pulse width modulator .....	.53	.50	.42
235328CH	+	UC3525AN	DIP-8	SMPS Controller .....	.57	.56	.50
314181CH	ANA	AP3842S	SO-8	High perf. current mode PWM contrlrl ...	.76	.64	.504
314190CH	ANA	AP3842N	DIP-8	High perf. current mode PWM contrlrl ...	.65	.61	.523
243521CH	+	UC3842AN	DIP-8	30V, current mode PWM controller .....	.48	.44	.36

\* 10 pcs. in Linear series IC cabinet kit, pg 37

## Linear Series (Continued)

Package (see above)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
278926CH	+	UC3842D	SOIC-14	30V, current mode PWM controller ...	\$ .87	\$ .70	\$ .53
243504CH	+	UC3843AN	DIP-8	30V, current mode PWM controller .....	.52	.45	.40
279443CH	+	UC3844D	SOIC-14	30V, current mode PWM controller .....	.44	.41	.38
243512CH	+	UC3844N	DIP-8	30V, current mode PWM controller .....	\$ .49	.44	.31
243491CH	+	UC3845N	DIP-8	30V, current mode PWM controller .....	.46	.41	.36
279451CH	+	UC3846N	DIP-16	40V, current mode PWM controller ....	.97	.82	.65
243571CH	+	LM4040AIZ-10	TO-92	Precision micropower shunt volt. ref. ..	1.79	1.49	.88
243598CH	+	LM4040AIZ-2.5	TO-92	2.5V, precision micropower volt. ref. ...	.96	.71	.53
243580CH	+	LM4040AIZ-5.0	TO-92	5.0V, precision micropower volt. ref. ..	1.79	1.68	1.11
243619CH	+	LM4040CIZ-2.5	TO-92	2.5V, precision micropower volt. ref. ...	.96	.71	.53
243601CH	+	LM4040CIZ-5.0	TO-92	5.0V, precision micropower volt. ref. ..	1.05	.78	.58
302252CH	NSC	LM4040DIZ-2.5	TO-92	Precision micropower shunt volt ref ....	.99	.74	.54
302228CH	NSC	LM4040DIZ-5.0	TO-92	Precision micropower shunt volt ref ....	.99	.64	.39
25275CH	+	MC4044P	DIP-14	Frequency phase detector .....	9.99	7.49	5.25
29372CH	+	RC4151NB	DIP-8	Volt to freq. converter (XR4151) .....	1.59	1.43	1.29
312119CH	+	TPS6734ID	SOIC-8	Fixed 12V 120mA boost converter supply ..	1.95	1.89	1.81
297924CH	+	TPS6734IP	DIP-8	Fixed 12V, 120mA boost-converter supply ..	1.95	1.59	1.25
312143CH	TI	TPS6735ID	SOIC-8	Fixed neg 5V 200mA invert DC/DC con ..	1.95	1.88	1.81
312135CH	TI	TPS6735IP	DIP-8	Fixed neg 5V 200mA invert DC/DC con ..	2.15	1.74	1.37
312127CH	TI	TPS6755ID	SOIC-8	Adjustable inverting DC/DC inverter ..	2.15	1.85	1.81
288163CH	ADI	AD7501KN	DIP-16	8-channel analog multiplexer .....	12.15	11.55	10.98
288180CH	ADI	AD7506JN	DIP-28	16-channel analog multiplexer .....	14.69	13.15	11.75
51140CH	+	7555IPA	DIP-8	CMOS timer (LM555CN) .....	.33	.31	.29
51174CH	+	7660CPA	DIP-8	CMOS volt convtr. (+5 to ±5V) (M660AN) ..	.85	.75	.65
290301CH	+	ICL7660ACPA	DIP-8	1.5V - 12V volt converter, 10kHz, supp ..	1.35	1.00	.869
290335CH	+	ICL7660SCPA	DIP-8	1.5V - 12V volt converter, 10kHz, parr ..	1.59	1.16	1.06
316662CH	+	ICL7662CBA	SOIC-8	Volt converter, 20Vin, 4.5-20Vout .....	2.99	2.79	2.65
316646CH	+	ICL7662CPA	DIP-8	Volt converter, 20Vin, 4.5-20Vout .....	1.59	.92	.85
51879CH	+	8038CCPD	DIP-14	Precision wave form generator .....	4.95	4.49	3.95
316540CH	+	TC9400CPD	DIP-14	Volt-Freq / Freq-Volt converter .....	5.75	5.34	5.07
316531CH	+	TC9400COD	SOIC-14	Volt-Freq / Freq-Volt converter .....	6.35	6.03	5.73
25021CH	ON	MC14411P	DIP-24	Bit rate frequency generator .....	5.95	5.45	4.75
241841CH	+	MC14467	DIP-16	Smoke detector .....	1.35	1.04	.86
25064CH	ON	MC14490P	DIP-16	Hex contact bounce eliminator .....	6.95	6.25	5.59
354597CH	+	MC14551N	DIP-16	Quad 2-ch. analog multi/demultiplexer ..	1.20	.97	.74
354626CH	+	MC14557	DIP-16	1-64 bit variable length shift register ...	.73	.61	.60
241832CH	ON	MC145012	DIP-16	Smoke detector .....	2.25	2.14	2.03
246713CH	ON	MC145151DW2	SOIC-28	Parallel input PLL freq. synthesizer .....	5.99	5.37	4.83
118586CH	ON	MC145151P	DIP-28	Parallel input PLL freq. synthesizer ....	5.85	4.97	3.73

## Awesome Prices in Integrated Circuits!

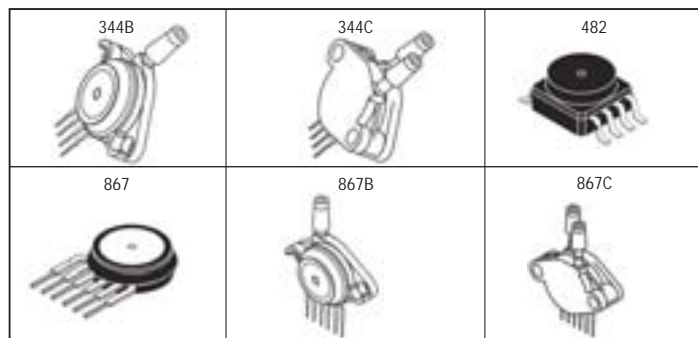
Jameco Part No.	Product No.	Jameco® Price	Digi-Key® Price	Mouser® Price	Newark® Price	Minimum Savings	Discount
256541CH	DG406D	\$4.15	\$12.35	—	\$9.27	\$5.12	55.2%
245420CH	LF347M	\$0.68	\$1.69	\$0.81	\$1.69	\$0.13	16.0%
309770CH	LM1084IT-12	\$1.17	\$2.57	—	\$1.51	\$0.34	22.5%
245526CH	LM1086CS-ADJ	\$1.09	\$1.67	—	\$1.58	\$0.49	31.0%
212126CH	LM239N	\$0.20	\$0.55	\$0.64	\$0.55	\$0.35	63.6%
192452CH	LM2595T-5.0	\$1.95	\$3.85	—	\$3.89	\$1.90	49.4%
24109CH	LM285Z	\$0.57	\$0.81	—	\$0.73	\$0.16	21.9%
245606CH	LM2902M	\$0.27	\$0.72	\$0.41	\$0.67	\$0.14	34.1%
245614CH	LM2903M	\$0.28	\$0.72	\$0.41	\$0.684	\$0.13	31.7%
213188CH	LM306N	\$0.69	\$1.05	\$1.11	\$1.05	\$0.36	34.3%
23608CH	LM318N	\$0.59	\$1.34	\$0.95	\$1.39	\$0.36	37.9%

## Awesome Prices in Integrated Circuits!

Jameco Part No.	Product No.	Jameco® Price	Digi-Key® Price	Mouser® Price	Newark® Price	Minimum Savings	Discount
120820CH	LM335AZ	\$0.81	—	\$1.68	\$1.55	\$0.74	47.7%
193623CH	LM386M-1	\$0.31	\$0.72	—	\$0.765	\$0.41	56.9%
213153CH	TL054ACN	\$1.99	\$5.51	\$5.67	\$5.52	\$3.52	63.9%
213145CH	TL054CN	\$1.29	\$1.80	\$1.89	\$1.80	\$0.51	28.3%
33161CH	TL062CP	\$0.27	\$0.64	\$0.59	\$0.64	\$0.32	54.2%
213065CH	TL074BCN	\$0.51	\$0.84	\$1.11	\$0.84	\$0.33	39.3%
214084CH	TL084ACN	\$0.49	\$0.88	\$0.93	\$0.88	\$0.39	44.3%
242296CH	TL1543CN	\$3.39	\$4.28	\$4.07	\$4.28	\$0.68	16.7%
290087CH	TLC7528CN	\$2.69	\$3.31	\$3.14	\$3.31	\$0.45	14.3%
243521CH	UC3842 PWM	\$0.48	\$1.90	\$0.58	\$0.859	\$0.10	17.2%
193826CH	ULN2003AD	\$0.39	\$0.84	—	\$0.84	\$0.45	53.6%

These are single unit prices taken from each party's website on March 17, 2005, and do not include shipping &amp; handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.



## Pressure Sensors

**NEW**

Package (see above)

Typical applications: air movement control, level indicators, leak detection, robotics and industrial controls

\* To convert kPa to PSI (1kPa = 0.1450377PSI)

Part No.	Product No.	Case Type	Typical Full Scale Span (kPa) @ 35mV	Pmax (kPa)*	Op. Volt. (VDC@mA)	1	10	100
320899CH	MPX10DP	344C	0 - 10	75	3 @ 6 ...	\$10.59	\$8.43	\$8.15
320987CH	MPX2010DP	344C	0 - 10	75	10 @ 6 ...	13.69	10.59	9.95
321015CH	MPX2010GP	344B	0 - 10	75	10 @ 6 ...	13.59	10.46	9.83
321040CH	MPX2050GP	344B	0 - 50	200	10 @ 6 ...	15.05	11.71	10.25
321293CH	MPX505D	867	0 - 50	200	5 @ 7 ...	16.15	13.10	12.40
321314CH	MPX5050GP	867B	0 - 50	200	5 @ 7 ...	17.29	13.59	12.81
321200CH	MPX4115A	867	15 - 115	400	5.1 @ 7 ...	16.69	13.09	12.33
321218CH	MPX4115AP	867B	15 - 115	400	5.1 @ 7 ...	17.29	13.59	12.40
321331CH	MPX5100DP	867C	15 - 115	400	5 @ 7 ...	17.45	13.71	12.92
321234CH	MPX4250AP	867B	20 - 250	1000	5.1 @ 7 ...	17.29	13.59	12.81
321411CH	MPXA4250A6U	482	20 - 250	1000	5.1 @ 7 ...	16.69	13.09	12.33
321373CH	MPX5700GP	867B	0 - 700	2800	5 @ 7 ...	17.29	13.59	12.40

### Don't See the Sensor You Need?

We have even more, see page 141.

## Dallas 87C/89C MCU Series

**NEW**

Package (see pg 42)

Part No.	Cross Ref.	Pkg.	Description	1	10
345295CH	DS89C450-MNL	DIP-40	MCU, 64k flash, ultra-high speed .....	\$12.05	\$11.09
345308CH	DS89C440-MNL	DIP-40	MCU, 32k flash, ultra-high speed .....	11.29	10.75
345316CH	DS89C430-MNL	DIP-40	MCU, 16k flash, ultra-high speed .....	9.99	9.70
345324CH	DS89C420-MCL	DIP-40	MCU, 16k flash, 33MHz, ultra-high speed.....	16.89	13.28
345332CH	DS87C550-QCL	PLCC-68	EPROM, high-speed w/ ADC & PWM .....	24.99	23.23
345341CH	DS87C530-QNL	PLCC-52	EPROM/ROM MCU w/ real-time clock .....	30.05	29.75
345359CH	DS87C520-WCL	DIP-40	EPROM/ROM MCU, high-speed .....	50.99	46.65
345367CH	DS87C520-MCL	DIP-44	EPROM/ROM MCU, high-speed .....	27.09	25.53

## Temperature Sensors

Package (see pg 42)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
311896CH	◆	LM20BIM7	SC70-5	Micro SMD temp. sensor 2.4V 10µA \$1.15	\$1.15	\$0.84	\$0.61
107094CH	NSC	LM34CZ	TO-92	Prec. temp. sensor (-40° to +230°F) ..	4.89	4.52	4.08
193480CH	NSC	LM34DM	SOIC-8	Prec. temp. sensor (-55° to 300°F) ..	1.75	1.29	.97
155192CH	NSC	LM34DZ	TO-92	Prec. temp. sensor (+32° to +212°F) ..	1.99	1.67	1.23
302560CH	NSC	LM35CAZ	TO-92	Precision C temp. sensor .....	5.19	4.14	3.55
193498CH	NSC	LM35DM	SOIC-8	Prec. temp. sensor (-55° to 150°C) ..	1.85	1.57	1.18
192217CH	NSC	LM35DT	TO-220/3	Prec. temp. sensor (-55° to 150°C) ..	2.55	1.92	1.44
107107CH	NSC	LM35CZ	TO-92	Prec. temp. sensor (-40° to 110°C) ..	5.35	4.10	3.16
155740CH	NSC	LM35DZ	TO-92	Prec. temp. sensor (0° to +100°C) ..	1.79	1.35	1.25
278361CH	ADI	TMP36FS	SOIC-8	Low voltage temperature sensor .....	.85	.77	.69
278395CH	ADI	TMP36GS	SOIC-8	Low voltage temperature sensor .....	.63	.54	.49

## Temperature Sensors

Package (see pg 42)

Part No.	Mfr.	Cross Ref.	Pkg.	Description	1	10	100
278387CH	ADI	TMP36GT9	TO-92	Low voltage temperature sensor ..	\$1.09	\$0.92	\$0.83
302164CH	NSC	LM50BIM3	SOT-23	Single supply C temp. sensor .....	1.45	1.10	.82
302172CH	NSC	LM50CIM3	SOT-23	Single supply C temp. sensor .....	.99	.74	.54
302148CH	NSC	LM56BIM	SOIC-8	Dual output low-power thermo, dig-out ....	2.29	1.71	1.37
302130CH	NSC	LM56BIMM	MSOP-8	Dual output low-power thermo, dig-out ...	3.39	3.21	3.05
302156CH	◆	LM61BIM3	SOT-23	2.7V analog temperature sensor ....	1.29	1.12	1.05
302092CH	◆	LM61CIZ	TO-92	2.7V analog temperature sensor .....	.95	.80	.75
311870CH	NSC	LM70CIMM-3	MSOP-8	SPI/Microwire 10-bit plus design sensor ..	1.69	1.27	.95
311888CH	NSC	LM70CIMM-5	MSOP-8	SPI/Microwire 10-bit plus design sensor ..	1.69	1.27	.95
301639CH	NSC	LM74CIBP-3	MICROSM5-12	12-bit + sign digital temp. sensor ..	2.29	1.71	1.44
301604CH	NSC	LM74CIBP-5	MICROSM5-12	12-bit + sign digital temp. sensor ..	2.29	1.71	1.44
301621CH	NSC	LM74CIM-3	SOIC-8	12-bit + sign digital temp. sensor .....	1.89	1.42	1.19
301583CH	NSC	LM74CIM-5	SOIC-8	12-bit + sign digital temp. sensor .....	1.89	1.41	1.19
311853CH	NSC	LM75CIM-3	SOIC-8	Digital temp sensor/thermal watchdog ....	1.65	1.32	1.17
311845CH	NSC	LM75CIM-5	SOIC-8	Digital temp sensor/thermal watchdog ....	1.65	1.32	1.17
301567CH	NSC	LM77CIM-3	SOIC-8	9-bit + sign digital window comp .....	2.15	1.61	1.39
301575CH	NSC	LM77CIMM-3	MSOP-8	9-bit + sign digital window comp .....	2.65	2.55	2.45
282028CH	◆	LM135H	TO-46	Precision temperature sensor .....	8.55	7.67	6.91
120820CH	◆	LM335AZ	TO-92	Precision temperature sensor .....	.81	.75	.71
193560CH	◆	LM335M	SOIC-8	Precision temperature sensor .....	1.10	.94	.69
23755CH	◆	LM335Z	TO-92	Volt mode temperature sensor .....	.67	.61	.44
241939CH	◆	AD590JH	TO-52/3	Two terminal IC temp. transducer ..	6.85	6.49	6.19
313306CH	◆	AD594AQ	DIP-14	Mono thermocouple amp w/ junction ..	10.39	10.22	10.05
313293CH	◆	AD595AQ	DIP-14	Mono thermocouple amp w/ junction ..	13.55	11.89	10.35
316970CH	◆	TC620CCPA	DIP-8	5V dual trip point temp. sensor .....	1.75	1.69	1.64
302551CH	◆	DS18S20	SOIC-8	High-precision 1-wire digital thermo ..	4.49	3.56	3.21
287371CH	◆	AD7814ARM	MSOP-8	10-bit digital temp. sensor .....	2.09	1.99	1.90



## Hall Sensors

Package (see pg 42)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
319089CH	ATS137M	SIP-3	Sgl out hall effect switch 25mA .....	\$1.79	\$1.57	\$1.31
319097CH	AH175P	SIP-3	Sgl out hall effect latch 25mA .....	1.79	1.57	1.31
319100CH	AH182PL	SIP-3	Sgl out hall effect switch 25mA .....	.72	.65	.504
319118CH	AH182WL	SOT-23/3	Sgl out hall effect switch 25mA .....	.72	.65	.494

## Digital Potentiometers

Package (see pg 42)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
241744CH	MCP41010-I/P	DIP-8	10kΩ, 256 steps, SPI digital pot .....	\$1.59	\$1.30	\$1.25
241761CH	MCP41050-I/P	DIP-8	50kΩ, 256 steps, SPI digital pot .....	1.85	1.55	1.40
241787CH	MCP41100-I/P	DIP-8	100kΩ, 256 steps, SPI digital pot ...	\$1.75	1.55	1.47 1.39
241752CH	MCP42010-I/P	DIP-14	10kΩ, 256 steps, 2-ch, SPI digital pot .....	2.39	1.89	1.87
241779CH	MCP42050-I/P	DIP-14	50kΩ, 256 steps, 2-ch, SPI digital pot .....	2.75	2.10	2.02
241795CH	MCP42100-I/P	DIP-14	100kΩ, 256 steps, 2-ch, SPI digital pot ....	2.59	2.33	2.10

## Transistors

Package (see pg 44)

\* Prepackaged: order in increments of 10, 100 or 1000

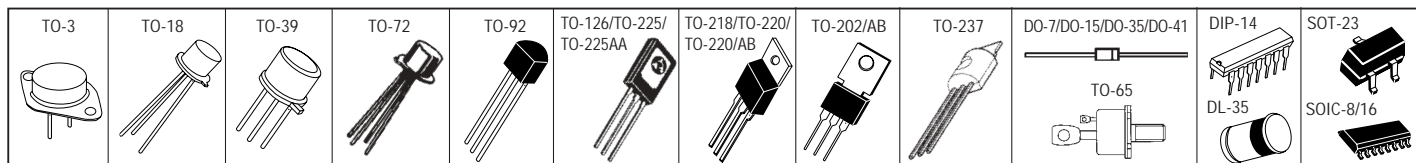
Part No.	Product No.	Mfr.	Pkg.	Desc.	V <sub>CE0</sub>	Min. (h <sub>FE</sub> @ I <sub>C</sub> )	1	10	100	1000
214834CH	MMBTA05	◆	SOT-23	NPN	60	—	.....	*	\$0.25	\$0.20 \$0.09
297799CH	MPSA05	◆	TO-92	NPN	60	100 @ .01A	.....	*	.075	.064 .034
214842CH	MMBTA06	◆	SOT-23	NPN	80	100 @ .01A	.....	*	.10	.06 .04
26462CH	MPSA06*	◆	TO-92	NPN	30	50 @ .01A	.....	*	.054	.047 .026
288930CH	MPSH10	◆	TO-92	NPN	25	60 @ .004A	.....	*	.10	.059 .043
214851CH	MMBTA13	◆	SOT-23	NPN	30	5k @ .01A	.....	*	.071	.049 .032

## We Have More Pots!

On pages 73-77 you will find Linear, Audio, Cermet and Trimmer Pots for all you needs.







## Transistors

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	V <sub>CE0</sub> Min.	(h <sub>FE</sub> @ Ic)	1	10	100	1000
26489CH	MPSA13*	♦	TO-92	NPN	30	5k @ .01A	.....	* .091	.042	.034
214869CH	MMBTA14	♦	SOT-23	NPN	30	10k @ .01A	.....	* .04	.032	.024
210593CH	MPSA14	♦	TO-92	NPN	30	20k @ .10A	.....	* .083	.067	.038
210681CH	MPSA18	♦	TO-92	NPN	45	500 @ .001A	.....	* .083	.062	.043
288850CH	MPSA29	♦	TO-92	NPN	100	10k @ .1A	.....	* .10	.059	.044
33021CH	TIP29A	♦	TO-220	NPN	60	15 @ 1A	.....	.44	.42	.39
297781CH	TIP29C	♦	TO-220	NPN	100	40 @ .2A	.....	.25	.208	.195
33030CH	TIP30A	♦	TO-220	NPN	60	15 @ 1A	.....	.52	.49	.39
179346CH	TIP30C	FSC	TO-220	PNP	100	15 @ 1A	.....	.39	.365	.32
33048CH	TIP31A*	♦	TO-220	NPN	60	10 @ 3A	.....	.49	.39	.35
179354CH	TIP31C	FSC	TO-220	NPN	100	10 @ 3A	.....	.33	.29	.25
33064CH	TIP32A*	♦	TO-220	PNP	60	10 @ 3A	.....	.36	.335	.285
181841CH	TIP32C	♦	TO-220	PNP	100	10 @ 3A	.....	.34	.30	.25
33081CH	TIP41A	♦	TO-220	NPN	60	15 @ 3A	.....	.58	.49	.445
179371CH	TIP41C	FSC	TO-220	NPN	100	15 @ 3A	.....	.52	.39	.29
214885CH	MMBTA42	♦	SOT-23	NPN	300	40 @ .01A	.....	* .065	.057	.04
178546CH	MPSA42	♦	TO-92	NPN	30	40 @ .03A	.....	* .081	.073	.062
33101CH	TIP42A	♦	TO-220	PNP	60	15 @ 3A	.....	.49	.42	.35
139580CH	TIP42C	♦	TO-220	PNP	100	15 @ 3A	.....	.49	.45	.38
179389CH	TIP42C	FSC	TO-220	PNP	100	15 @ 3A	.....	.54	.49	.44
288614CH	TIP47	♦	TO-220	NPN	250	30 @ 3A	.....	.48	.357	.202
288631CH	TIP48	♦	TO-220	NPN	300	30 @ 3A	.....	.49	.291	.265
214906CH	MMBTA55	♦	SOT-23	PNP	60	100 @ .01A	.....	* .045	.036	.027
214914CH	MMBTA56	♦	SOT-23	PNP	80	100 @ .01A	.....	* .085	.073	.055
210606CH	MPSA56	♦	TO-92	NPN	80	100 @ .10A	.....	* .099	.074	.042
214922CH	MMBTA63	♦	SOT-23	PNP	30	5k @ .01A	.....	* .062	.05	.03
288921CH	MPSA63	♦	TO-92	PNP	30	10k @ .1A	.....	* .075	.042	.03
214931CH	MMBTA64	♦	SOT-23	PNP	30	10k @ .01A	.....	* .047	.04	.03
120221CH	BPW77NA	♦	TO-18	NPN	70	—	1.59	1.55	1.49	1.39
178554CH	MPSA92	♦	TO-92	PNP	300	25 @ .003A	.....	* .11	.075	.049
214957CH	MMBTA92	♦	SOT-23	PNP	300	40 @ .01A	.....	* .06	.059	.044
214033CH	MPSA93	♦	TO-92	PNP	200	25 @ .03A	.....	* .08	.06	.038
277413CH	PN100	♦	TO-92	NPN	45	100 @ .15A	.....	* .045	.032	.027
288420CH	TIP100	♦	TO-220	NPN	60	1k @ 3A	.....	.52	.43	.27
297772CH	TIP101	♦	TO-220	NPN	80	1k @ 3A	.....	.60	.54	.46
32977CH	TIP102*	♦	TO-220	NPN	100	1k @ 3A	.....	.57	.49	.41
179240CH	TIP102	FSC	TO-220	NPN	100	1k @ 3A	.....	.37	.33	.31
288462CH	TIP105	♦	TO-220	PNP	60	1k @ 3A	.....	.41	.398	.319
32985CH	TIP106	♦	TO-220	PNP	80	1k @ 3A	.....	.85	.75	.69
179258CH	TIP107	FSC	TO-220	PNP	100	1k @ 3A	.....	.52	.46	.38
288471CH	TIP110	♦	TO-220	NPN	60	1k @ 1A	.....	.48	.457	.37
288500CH	TIP111	♦	TO-220	NPN	80	1k @ 1A	.....	.50	.45	.43
288518CH	TIP112	♦	TO-220	NPN	100	1k @ 1A	.....	.51	.44	.38
288526CH	TIP115	♦	TO-220	PNP	60	1k @ 1A	.....	.48	.37	.20
288542CH	TIP117	♦	TO-220	PNP	100	1k @ 1A	.....	.50	.375	.295
32993CH	TIP120*	♦	TO-220	NPN	60	1k @ 3A	.....	.49	.45	.39
179291CH	TIP120	FSC	TO-220	NPN	60	1k @ 3A	.....	.59	.51	.42
288585CH	TIP121	♦	TO-220	NPN	80	1k @ .5A	.....	.49	.375	.31
120416CH	TIP122	♦	TO-220	NPN	100	1k @ 3A	.....	.42	.37	.35
179303CH	TIP122	FSC	TO-220	NPN	100	1k @ 3A	.....	.55	.42	.32
33013CH	TIP125	♦	TO-220	PNP	60	1k @ 3A	.....	.49	.45	.29
288606CH	TIP126	♦	TO-220	PNP	80	1k @ .5A	.....	.49	.375	.285

♦ Jameco Value Offering FSC = Fairchild Semiconductor

\* 10 pcs. in Transistor cabinet kit, pg 45

## Transistors (Continued)

Package (see above)

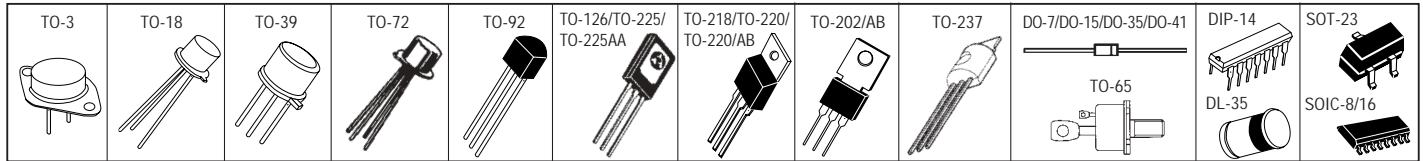
\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	V <sub>CE0</sub> Min.	(h <sub>FE</sub> @ Ic)	1	10	100	1000
179320CH	TIP127	FSC	TO-220	PNP	100	1k @ 3A	.....	* .48	.42	.29
277886CH	MJE172	♦	TO-225	PNP	80	30 @ .50A	.....	.32	.30	.29
277341CH	PN200	♦	TO-92	PNP	45	100 @ .15A	.....	* .09	.06	.045
254772CH	BD237	♦	TO-126	NPN	80	40 @ .15A	.....	.41	.40	.38
254810CH	BC337	♦	TO-92	NPN	45	100 @ .10A	.....	* .174	.114	.058
211529CH	MJE340	♦	TO-225	NPN	300	30 @ .05A	.....	.34	.30	.26
211537CH	MJE350	♦	TO-225	PNP	300	30 @ .05A	.....	.41	.37	.33
255994CH	BU406	♦	TO-220	NPN	200	—	1.17	1.02	.89	.83
272031CH	BU407	♦	TO-220	NPN	150	—	.91	.81	.77	.61
256073CH	BD438	♦	TO-225	PNP	45	30 @ .01A	.....	.39	.36	.34
254801CH	BC547B	♦	TO-92	NPN	45	330 @ .002A	.....	* .075	.067	.051
254799CH	BC547C	♦	TO-92	NPN	45	600 @ .002A	.....	* .08	.075	.05
254781CH	BC548B	♦	TO-92	NPN	30	110 @ .002A	.....	* .085	.075	.05
309825CH	BD681	♦	TO-225	NPN	100	750 @ 2A	.....	.49	.481	.285
256065CH	BD682	♦	TO-225	PNP	100	750 @ 1.5A	.....	.39	.38	.36
211545CH	MJE700	♦	TO-225	PNP	60	750 @ 1.5A	.....	.50	.45	.35
211553CH	MJE800	♦	TO-225	NPN	60	750 @ 1.5A	.....	.28	.26	.23
213920CH	MMBT918	♦	SOT-23	NPN	15	20 @ .003A	.....	* .06	.043	.03
194327CH	2N2102	♦	TO-39	NPN	65	40 @ .15A	.....	.57	.50	.45
38228CH	2N219A	♦	TO-39	PNP	40	100 @ .15A	.....	.41	.37	.31
94941CH	MMBT2222	♦	SOT-23	NPN	30	100 @ .15A	.....	.22	.045	.034
26446CH	MPQ2222	♦	DIP-14	NPN	40	100 @ .15A	.....	2.45	2.19	1.99
28628CH	PN2222**	♦	TO-92	NPN	30	100 @ .15A	.....	* .065	.041	.025
213938CH	MMBT2222A	♦	SOT-23	NPN	40	100 @ .15A	.....	* .045	.035	.019
213997CH	MMPQ2222A	♦	SOIC-16	NPN	40	100 @ .15A	.....	.95	.86	.68
210673CH	MPS2222A	♦	TO-92	NPN	40	40 @ .50A	.....	* .049	.045	.034
178511CH	PN2222A	♦	TO-92	NPN	40	100 @ .15A	.....	* .12	.08	.04
38236CH	2N2222A*	♦	TO-18	NPN	40	100 @ .15A	.....	.39	.35	.29
214658CH	MMBT2369	♦	SOT-23	PNP	25	60 @ .05A	.....	* .09	.054	.03
213946CH	MMBT2369A	♦	SOT-23	NPN	15	40 @ .01A	.....	* .04	.032	.024
26526CH	MPS2369	♦	TO-92	NPN	15	20 @ .10A	.....	* .066	.042	.032
211334CH	MPS2369A	♦	TO-92	NPN	15	20 @ .10A	.....	* .11	.052	.048
194378CH	2N2905A	♦	TO-39	PNP	60	100 @ .15A	.....	.45	.40	.35
94959CH	MMBT2907	♦	SOT-23	PNP	40	100 @ .15A	.....	.22	.068	.041
26454CH	MPQ2907	♦	DIP-14	PNP	40	100 @ .15A	.....	2.19	1.85	1.35
28644CH	PN2907**	♦	TO-92	PNP	40	100 @ .15A	.....	* .125	.09	.045
213954CH	MMBT2907A	♦	SOT-23	PNP	60	100 @ .01A	.....	* .054	.043	.032
214009CH	MMPQ2907A	♦	SOIC-16	PNP	60	100 @ .01A	.....	1.19	.89	.71
211342CH	MPS2907A	♦	TO-92	PNP	60	100 @ .15A	.....	* .048	.04	.036
178520CH	PN2907A	♦	TO-92	PNP	60	100 @ .15A	.....	* .058	.042	.034
38279CH	2N2907A*	♦	TO-18	PNP	60	100 @ .15A	.....	.36	.34	.31
211377CH	TIP2955	♦	TO-218	PNP	60	5 @ .001A	.....	1.05	.94	.90
211502CH	MJ2955	♦	TO-3	PNP	60	20 @ 4A	.....	.69	.62	.56
25831CH	MJE2955T	♦	TO-220	PNP	60	20 @ 4A	.....	.51	.44	.39
38295CH	2N3053*	♦	TO-39	NPN	40	25 @ .15A	.....	.47	.43	.40
211385CH	TIP3055	♦	TO-218	NPN	60	5 @ .001A	.....	1.05	.90	.81
38308CH	2N3055*	♦	TO-3	NPN	60	15 @ 10A	.....	.95	.85	.72
211406CH	2N3055A	♦	TO-3	NPN	60	20 @ 4A	.....	1.55	1.40	1.07
25857CH	MJE3055T	♦	TO-220	NPN	60	20 @ 4A	.....	.51	.44	.395
194415CH	2N3439	♦	TO-39	NPN	350	40 @ .02A	.....	.56	.48	.43
194458CH	2N3700	♦	TO-18	NPN	80	100 @ .15A	.....	.47	.42	.34
209242CH	2N3771	♦	TO-3	NPN	40	15 @ 15A	.....	1.89	1.75	1.55

♦ Jameco Value Offering FSC = Fairchild Semiconductor

\* 10 pcs. in Transistor cabinet kit, pg 45

\*\* 100 pcs. in Transistor cabinet kit, pg 45



ON Semiconductor



FAIRCHILD

VISHAY

SAMSUNG

DIODES



## Transistors (Continued)

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	V <sub>CEO</sub> Min.	(h <sub>FE</sub> @ I <sub>C</sub> )	1	10	100	1000
38324CH	2N3772	♦	TO-3	NPN	40	15 @ 10A	\$1.95	\$1.65	\$1.48	\$1.38
140151CH	2N3773	♦	TO-3	NPN	140	15 @ 8A	2.45	2.32	2.26	2.07
62279CH	2N3903	♦	TO-92	NPN	40	50 @ .01A	...	...	...	...
94967CH	MMBT3904	♦	SOT-23	NPN	40	100 @ .01A	...	...	...	...
211351CH	MPS3904	♦	TO-92	NPN	40	100 @ .001A	...	...	...	...
38359CH	2N3904**	♦	TO-92	NPN	40	100 @ .01A	...	...	...	...
178597CH	2N3904	FSC	TO-92	NPN	40	100 @ .01A	...	...	...	...
62287CH	2N3905	♦	TO-92	NPN	40	50 @ .01A	...	...	...	...
94975CH	MMBT3906	♦	SOT-23	PNP	40	100 @ .01A	...	...	...	...
214017CH	MMPQ3906	♦	SOIC-16	PNP	40	75 @ .01A	...	...	...	...
38375CH	2N3906**	♦	TO-92	PNP	40	100 @ .01A	...	...	...	...
178618CH	2N3906	FSC	TO-92	PNP	40	100 @ .01A	...	...	...	...
194466CH	2N4033	♦	TO-39	PNP	80	100 @ .10A	...	...	...	...
38404CH	2N4123	♦	TO-92	NPN	30	25 @ .05A	...	...	...	...
214674CH	MMBT4124	♦	SOT-23	NPN	25	60 @ .05A	...	...	...	...
62295CH	2N4124	♦	TO-92	NPN	25	60 @ .05A	...	...	...	...
214682CH	MMBT4126	♦	SOT-23	PNP	25	60 @ .05A	...	...	...	...
214623CH	2N4126	♦	TO-92	PNP	25	60 @ .05A	...	...	...	...
253411CH	2N4400	♦	TO-92	NPN	40	50 @ .15A	...	...	...	...
214703CH	MMBT4401	♦	SOT-23	NPN	40	80 @ .01A	...	...	...	...
38421CH	2N4401*	♦	TO-92	NPN	40	100 @ .15A	...	...	...	...
214720CH	MMBT4403	♦	SOT-23	PNP	40	60 @ .001A	...	...	...	...
38447CH	2N4403*	♦	TO-92	PNP	40	100 @ .15A	...	...	...	...
211511CH	2N4410	♦	TO-92	NPN	80	60 @ .01A	...	...	...	...
277755CH	MJ4502	♦	TO-3	PNP	90	25 @ 7.5A	...	...	...	...
211465CH	2N4920	♦	TO-225	PNP	80	30 @ .50A	...	...	...	...
211490CH	2N4923	♦	TO-225	NPN	80	30 @ .50A	...	...	...	...
310666CH	2N5038	♦	TO-3	NPN	150	20 @ 12A	...	...	...	...
213962CH	MMBT5087	♦	SOT-23	PNP	50	250 @ .01A	...	...	...	...
210631CH	2N5087	♦	TO-92	PNP	50	250 @ .10A	...	...	...	...
213971CH	MMBT5088	♦	SOT-23	NPN	30	300 @ .01A	...	...	...	...
62316CH	2N5088	♦	TO-92	NPN	30	300 @ .10A	...	...	...	...
214746CH	MMBT5089	♦	SOT-23	NPN	25	400 @ .01A	...	...	...	...
62324CH	2N5089	♦	TO-92	NPN	25	400 @ .10A	...	...	...	...
140373CH	2N5179	♦	TO-72	NPN	12	25 @ .003A	...	...	...	...
209251CH	2N5191	♦	TO-225	NPN	60	25 @ 1.5A	...	...	...	...
209269CH	2N5194	♦	TO-225	PNP	60	25 @ 1.5A	...	...	...	...
38501CH	2N5195	♦	TO-225	PNP	80	20 @ 1.5A	...	...	...	...
253930CH	2N5400	♦	TO-92	NPN	120	40 @ .010A	...	...	...	...
214754CH	MMBT5401	♦	SOT-23	PNP	150	40 @ .001A	...	...	...	...
210649CH	2N5401	♦	TO-92	PNP	150	60 @ .01A	...	...	...	...
214762CH	MMBT5550	♦	SOT-23	NPN	140	60 @ .01A	...	...	...	...
253569CH	2N5550	♦	TO-92	NPN	140	60 @ .010A	...	...	...	...
214771CH	MMBT5551	♦	SOT-23	NPN	140	80 @ .01A	...	...	...	...
210657CH	2N5551	♦	TO-92	NPN	160	80 @ .01A	...	...	...	...
209277CH	2N5657	♦	TO-126	NPN	350	30 @ .10A	...	...	...	...
253438CH	2N5884	♦	TO-3	PNP	80	4 @ 25A	...	...	...	...
254764CH	2N5886	♦	TO-3	NPN	80	20 @ 10A	...	...	...	...
194571CH	2N6042	♦	TO-220	PNP	100	1k @ 3A	...	...	...	...
194589CH	2N6045	♦	TO-220	NPN	100	1k @ 3A	...	...	...	...
194597CH	2N6052	♦	TO-3	PNP	100	750 @ 6A	...	...	...	...
194600CH	2N6059	♦	TO-3	NPN	100	750 @ 6A	...	...	...	...
255011CH	2N6292	♦	TO-220	NPN	70	30 @ 2A	...	...	...	...
213989CH	MMBT6427	♦	SOT-23	NPN	40	10k @ .01A	...	...	...	...

♦ Jameco Value Offering FSC = Fairchild Semiconductor

\* 10 pcs. in. Transistor cabinet kit, see right \*\* 100 pcs. in. Transistor cabinet kit, see right

## Transistors (Continued)

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	V <sub>CEO</sub> Min.	(h <sub>FE</sub> @ I <sub>C</sub> )	1	10	100	1000
255003CH	2N6427	♦	TO-92	NPN	40	10k @ .01A	...	...	...	...
288817CH	MPS6521	♦	TO-92	NPN	25	300 @ 0.002A	...	...	...	...
288833CH	MPS6531	♦	TO-92	NPN	40	60 @ 0.01A	...	...	...	...
194618CH	2N6547	♦	TO-3	NPN	400	12 @ 5A	...	...	...	...
194626CH	2N6678	♦	TO-3	NPN	400	8 @ 15A	...	...	...	...
214025CH	MMPQ6700	♦	SOIC-16	NPN/PNP	40	70 @ .01A	...	...	...	...
140134CH	2N6725	♦	TO-237	NPN	50	25k @ .20A	...	...	...	...
277771CH	MJE13005	♦	TO-220	NPN	400	8 @ 2A	...	...	...	...
277798CH	MJE15029	♦	TO-220	PNP	120	40 @ 2A	...	...	...	...
277851CH	MJE15031	♦	TO-220	PNP	150	40 @ 2A	...	...	...	...

♦ Jameco Value Offering

## Transistor Assortment Cabinet Kit

SAVE \$8

Includes:

20 drawer component cabinet (319599CH),  
 20 clear plastic drawers (319601CH),  
 20 clear dividers (319610CH), pg 244 and  
 30 adhesive labels for drawers to identify parts in kit

10 each: 2N2222A, 2N2907A, 2N3053, 2N3055, 2N4401,  
 2N4403, 2N5951, 2N7000, MJE3055T, MPF102,  
 MPSA06, MPSA13, TIP31A, TIP32A, TIP102, TIP120  
 100 each: 2N3904, 2N3906, PN2222, PN2907



Part No.	Description	Wt. (lbs.)	1	10
82595CH	560 pcs. (20 types) NPN, PNP transistor kit	5.1	\$82.95	\$74.65
130374CH	Refill for 82595CH (560 pcs.)	0.4	69.95	62.95

## J-FETs

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	BV <sub>GS</sub> @ I <sub>GU</sub> A	Loss (mA) @ V <sub>DS</sub>	1	10	100	1000
26403CH	MPF102*	♦	TO-92	N-Ch	25 @ 1	20 @ 15	...	...	...	...
211393CH	J111	♦	TO-92	N-Ch	35 @ 1	20 @ 15	...	...	...	...
140450CH	J112	♦	TO-92	N-Ch	35 @ 1	5 @ 15	...	...	...	...
140142CH	J176	♦	TO-92	P-Ch	30 @ 1	2 @ 25	...	...	...	...
211414CH	J177	♦	TO-92	P-Ch	30 @ 1	20 @ 15	...	...	...	...
253921CH	2N5458	♦	TO-92	N-Ch	25 @ 0.1	—	...	...	...	...
210622CH	2N3819	♦	TO-92	N-Ch	25 @ 1	20 @ 15	...	...	...	...
38527CH	2N5951*	♦	TO-92	N-Ch	30 @ 1	13 @ 15	...	...	...	...

♦ Jameco Value Offering \* 10 pcs. in. Transistor cabinet kit, above

## N-Channel/P-Channel MOSFETs

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	Min. On-St. BV <sub>DS</sub>	DS Current	1	10	100	1000
256014CH	BSS138	♦	SOT-23	N-Ch	50V	0.2A	...	...	...	...
256031CH	BS170	♦	TO-92	N-Ch	60V	—	...	...	...	...
256057CH	BS250	♦	TO-92	P-Ch	45V	—	...	...	...	...
209234CH	IRF510	♦	TO-220	N-Ch	100V	5.6A	...	...	...	...
209226CH	IRF520	♦	TO-220	N-Ch	100V	10.0A	...	...	...	...
209058CH	IRL520L	♦	TO-220	N-Ch	100V	10.0A	...	...	...	...
210500CH	IRF530	♦	TO-220	N-Ch	100V	14.0A	...	...	...	...
210518CH	IRF540	♦	TO-220	N-Ch	100V	27.0A	...	...	...	...
210526CH	IRF620	♦	TO-220	N-Ch	200V	6.0A	...	...	...	...
210534CH	IRF630	♦	TO-220	N-Ch	200V	9.0A	...	...	...	...
210542CH	IRF640	♦	TO-220	N-Ch	200V	18.0A	...	...	...	...

♦ Jameco Value Offering



## N-Channel/P-Channel MOSFETs (Con't)

Package (see pg 45)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	BV <sub>DS</sub>	Min. On-St. DS Current	1	10	100	1000
210551CH	IRF730	♦	TO-220	N-Ch	400V	5.5A	\$.89	\$.75	\$.67	\$.63
210569CH	IRF740	♦	TO-220	N-Ch	400V	10.0A	1.25	1.10	.89	.80
210577CH	IRF820	♦	TO-220	N-Ch	500V	4.0A	.65	.59	.53	.44
210585CH	IRF830	♦	TO-220	N-Ch	500V	4.5A	.77	.70	.62	.58
184719CH	IRF840	♦	TO-220	N-Ch	500V	8.0A	1.49	1.29	.99	.89
279460CH	VN2222LL	♦	TO-92	N-Ch	60V	.75A	.23	.20	.16	.14
279486CH	VN2410L	♦	TO-92	N-Ch	240V	1.0A	.45	.405	.364	.328
279478CH	VN2406L	♦	TO-92	N-Ch	240V	1.0A	.44	.35	.27	.17
255020CH	SI4410DY	♦	SOIC-8	N-Ch	30V	20A	.89	.73	.52	.50
255038CH	SI4420DY	♦	SOIC-8	N-Ch	30V	30A	1.79	1.75	1.69	1.29
255046CH	SI4435DY	♦	SOIC-8	P-Ch	-30V	-40A	.85	.71	.52	.42
255054CH	SI4463DY	♦	SOIC-8	P-Ch	-20V	-30A	1.65	1.55	1.49	1.17
255062CH	SI4467DY	♦	SOIC-8	P-Ch	-12V	-20A	1.59	1.45	1.24	1.02
255071CH	SI4884DY	♦	SOIC-8	N-Ch	30V	40A	.59	.57	.55	.53
255089CH	SI4963DY	♦	SOIC-8	Dual P-Ch	-20V	-20A	1.45	1.32	1.19	1.09
253948CH	2N5457	♦	TO-92	N-Ch	-25V	—	.20	.18	.126	.102
253913CH	2N5460	♦	TO-92	P-Ch	40V	—	.34	.28	.22	.19
253905CH	2N5461	♦	TO-92	P-Ch	40V	—	.26	.19	.16	.13
253892CH	2N5462	♦	TO-92	P-Ch	40V	—	*.089	*.081	*.073	
253884CH	2N5484	♦	TO-92	N-Ch	-25V	—	*.13	.09	.052	
253585CH	2N5485	♦	TO-92	N-Ch	-25V	—	.23	.20	.18	.13
253577CH	2N5486	♦	TO-92	N-Ch	-25V	—	*.18	.15	.11	
253542CH	2N5639	♦	TO-92	N-Ch	30V	0.05A	.20	.175	.125	.065
178669CH	2N7000*	FSC	TO-92	N-Ch	60V	0.2A	.23	.19	.13	.11
119423CH	2N7000	♦	TO-92	N-Ch	60V	0.3A	*.11	.10	.09	
140169CH	2N7002	♦	SOT-23	N-Ch	60V	0.5A	*.08	.06	.033	

♦ Jameco Value Offering

FSC = Fairchild Semiconduct

\* 10 pcs. in Transistor cabinet kit, pg 45

## Diodes

Package (see pg 45)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Description	1	10	100	1000
140185CH	BAS16	♦	SOT-23	70PRV, 1A (Switching)	*.09	\$.065	\$.027	
254852CH	BAT54	♦	SOT-23	30PRV, 0.6A (Schottky)	*.16	.125	.09	
254844CH	BAT54A	♦	SOT-23	30PRV, 0.6A (Schottky)	*.08	.05	.043	
254836CH	BAT54C	♦	SOT-23	30PRV, 0.6A (Schottky)	*.08	.05	.043	
254828CH	BAT54S	♦	SOT-23	30PRV, 0.6A (Schottky)	.21	.19	.16	.11
140177CH	BAW56	♦	SOT-23	70PRV, 0.25A (Switching)	*.058	.034	.021	
140206CH	BAV70	♦	SOT-23	70PRV, 0.25A (Switching)	*.06	.044	.026	
140193CH	BAV99	♦	SOT-23	70PRV, 1A (Switching)	*.06	.05	.038	
35941CH	1N270*	♦	DO-7	80PRV (Germanium)	.99	.86	.74	.61
313402CH	MMBD914	♦	SOT-23	100 V <sub>RRM</sub> , 0.20A (Switching)	*.057	.055	.031	
179207CH	1N914	VSH	DO-35	100PRV (Switching)	*.05	.025	.014	
36311CH	1N914**	♦	DO-35	75PRV, 0.1A (Switching)	*.022	.018	.014	
312101CH	MBR1100	♦	DO-41	100PRV, 1.0A (Schottky)	.26	.144	.101	.097
35967CH	1N3600*	♦	DO-35	50PRV, 20A (Switching)	*.045	.029	.019	
179215CH	1N4148	VSH	DO-35	100PRV (Switching)	*.04	.03	.025	
36038CH	1N4148**	♦	DO-35	75PRV, 0.1A (Switching)	*.036	.027	.023	
151247CH	1N4148T	♦	DO-35	75PRV, 0.1A (Switching)	#	#	#	.009
94908CH	LL4148	♦	DL-35	75PRV @ 50µA, 10mA	†	†	.032	.014
313411CH	MMBD4148	♦	SOT-23	100 V <sub>RRM</sub> , 0.20A (Gen. Purp.)	*.057	.055	.031	

♦ Jameco Value Offering

VSH = Vishay

† Prepackaged: order in increments of 100

\* 10 pcs. in Diode/rectifier cabinet kit, pg 47

# Taped-ammo style: order in increments of 1000

\*\* 100 pcs. in Diode/rectifier cabinet kit, pg 47

## Zener Diodes

Package (see pg 45)

Prepackaged: order in increments of 10, 100, 500 or 1000

Part No.	Product No.	Mfr.	Pkg.	V <sub>Znom</sub>	Pwr Dissipation	1	10	100	500	1000
36290CH	1N751A*	♦	DO-35	5.1V	0.5W	\$.06	\$.052	\$.045	\$.022	
288665CH	MMSZ4697	♦	SOD-123	10V	0.5W	.108	.059	.05	.045	
178765CH	1N4730A	♦	DO-41	3.9V	1W	.069	.055	.045	.029	
178773CH	1N4732A	VSH	DO-41	4.7V	1W	.07	.055	.045	.035	
178781CH	1N4733A	VSH	DO-41	5.1V	1W	.09	.06	.05	.04	
36097CH	1N4733A*	♦	DO-41	5.1V	1W	.08	.065	.042	.026	

♦ Jameco Value Offering

VSH = Vishay

\* 10 pcs. in Diode/rectifier cabinet kit, pg 47

Zener Diodes continued on next page.

## Heat Sinks

NEW

Our TO-3 & TO-220 heat sinks are made from black anodized aluminum (except for P/N 107297CH which is light weight aluminum). They can be mounted horizontally or vertically depending on your applications. P/N 42622CH and 228005CH can be mounted vertically with solderable mounting tabs.

326633CH	326684CH	326756CH	326772CH	326596CH
326609CH	326617CH	326625CH	326641CH	326650CH
326692CH	326705CH/326713CH	326721CH	326748CH	326764CH
16512CH	189835CH	151546CH	42622CH/228005CH	
40504CH	158051CH	70914CH	70658CH	129242CH
107297CH				

Part No.	Cross Ref. No.	Type	Size (L"xW"xH")	1	10	100	1000
326668CH	577500B00000	TO-126	—	\$.33	\$.295	\$.26	\$.25
326633CH	577304B00000	TO-202	0.52x0.38x0.75	.24	.23	.22	.207
326684CH	566010B03400	TO-218	1.00x0.51x1.22	.99	.89	.76	.65
326730CH	513201B02500	TO-218	—	.71	.68	.66	.56
326756CH	529801B02500	TO-218	1.64x0.98x1.51	1.02	.98	.83	.71
326772CH	530101B00150	TO-218	1.75x0.49x1.75	1.11	1.09	.94	.79
320320CH	BK-ALU-0034-001	TO-220	1.80x1.50x0.40	.30	.285	.279	.227
326596CH	507302B00000	TO-220	0.75x0.38x0.74	.25	.23	.20	.18
326609CH	577002B00000	TO-220	0.51x0.25x0.75	.30	.23	.215	.20
326617CH	577102B00000	TO-220	0.52x0.37x0.75	.25	.23	.215	.20
326625CH	577202B00000	TO-220	0.51x0.49x0.75	.27	.23	.215	.20
326641CH	577002B04000	TO-220	0.53x0.50x0.76	.30	.277	.232	.20
326650CH	577102B04000	TO-220	0.52x0.38x0.75	.27	.261	.224	.20
326676CH	593002B03400	TO-220	—	.52	.482	.416	.35
326692CH	531002B05200	TO-220	1.38x0.50x1.00	.84	.75	.65	.495
326705CH	531102B02500	TO-220	1.37x0.49x1.50	.67	.66	.57	.485
326713CH	531102B02500	TO-220	1.38x0.50x1.51	.86	.80	.68	.575
326721CH	531202B00000	TO-220	1.38x0.50x2.00	.76	.72	.70	.60
326748CH	531202B02500	TO-220	1.37x0.49x2.00	.89	.86	.74	.62
326764CH	531302B02500	TO-220	1.38x0.50x2.50	.92	.90	.77	.65

## Other Manufacturers — Limited Great Deals

Part No.	Cross Ref. No.	Type	Size (L"xW"xH")	1	10	100	1000
16512CH	DUDE4	TO-3	4.80x1.50x1.30	\$2.95	\$2.75	\$2.49	\$2.25
151546CH	635-125B2	TO-3	1.90x1.40x1.30	.99	.89	.67	.60
189835CH	635-5B2	TO-3	1.9x1.4x0.5	.95	.86	.68	.51
70914CH	THM6106	TO-220	1.20x1.00x0.50	.35	.30	.28	.26
129242CH	THM6106	TO-220	1.20x1.00x0.50	.49	.45	.39	.35
42622CH	563002B00000	TO-220	1.2x1.0x0.5	.35	.30	.28	.26
228005CH	BK-T220	TO-220	1.2x1.0x0.5	.35	.30	.28	.26
40504CH	291-H-36AB	TO-220	0.9x1.0x0.4	.89	.80	.72	.60
158051CH	577102B00000	TO-220	.75x.52x.38	.39	.35	.29	.25
70658CH	THM6073	TO-220	0.8x0.7x0.4	.29	.269	.26	.25
107297CH	PSC2-U (cup-style)	TO-220	0.8x1.0x0.4	.49	.44	.40	.32

# Diodes, Transient Voltage Suppressors & Triacs

## Zener Diodes (Continued)

Package (see pg 45)

Prepackaged: order in increments of 10, 100, 500 or 1000									
Part No.	Product No.	Mfr.	Pkg.	V <sub>Znom</sub>	Pwr Dissipation	10	100	500	1000
178790CH	1N4734A	VSH	DO-41	5.6V	1W	.....\$ .045	.....\$ .041	.....\$ .037	.....\$ .034
36118CH	1N4734A	◆	DO-41	5.6V	1W	......073	......055	......05	......045
178802CH	1N4735A	VSH	DO-41	6.2V	1W	......055	......049	......04	......036
36126CH	1N4735A*	◆	DO-41	6.2V	1W	......07	......045	......041	......035
178811CH	1N4737A	◆	DO-41	7.5V	1W	......043	......039	......036	......032
178829CH	1N4738A	◆	DO-41	8.2V	1W	......066	......042	......034	......029
178837CH	1N4739A	◆	DO-41	9.1V	1W	......063	......042	......035	......032
178845CH	1N4740A	◆	DO-41	10V	1W	......045	......039	......032	......028
178853CH	1N4742A	VSH	DO-41	12V	1W	......063	......042	......039	......037
36169CH	1N4742A*	◆	DO-41	12V	1W	......07	......055	......045	......032
178861CH	1N4744A	VSH	DO-41	15V	1W	......063	......042	......039	......036
36185CH	1N4744A	◆	DO-41	15V	1W	......07	......055	......045	......032
178888CH	1N4747A	◆	DO-41	20V	1W	......05	......046	......041	......038
178896CH	1N4748A	◆	DO-41	22V	1W	......032	......029	......027	......024
178909CH	1N4749A	◆	DO-41	24V	1W	......042	......039	......035	......032
183450CH	1N4750A	◆	DO-41	27V	1W	......045	......041	......037	......034
179004CH	1N5225B	◆	DO-35	3.0V	0.5W	......033	......025	......017	......016
288702CH	MMSZ5226B	◆	SOD-123	3.3V	0.5W	......107	......067	......064	......045
179021CH	1N5229B	◆	DO-35	4.3V	0.5W	......027	......024	......022	......02
179039CH	1N5230B	◆	DO-35	4.7V	0.5W	......026	......024	......022	......02
179047CH	1N5231B	◆	DO-35	5.1V	0.5W	......04	......035	......03	......027
179055CH	1N5232B	◆	DO-35	5.6V	0.5W	......026	......023	......021	......019
179063CH	1N5234B	◆	DO-35	6.2V	0.5W	......04	......035	......029	......025
313390CH	MMBZ5241B	◆	SOT-23	11V	0.35W	......115	......069	......059	......042
179098CH	1N5242B	◆	DO-35	12V	0.5W	......029	......027	......025	......024
179135CH	1N5250B	◆	DO-35	20V	0.5W	......034	......03	......027	......02
288788CH	MMSZ5257	◆	SOD-123	33V	0.5W	......116	......05	......044	......04
◆ Jameco Value Offering    VSH = Vishay    *10 pcs. in Diode/rectifier cabinet kit, see below right									

## Transient Voltage Suppressors

Package (see pg 45)

* Prepackaged: order in increments of 10, 100 or 1000									
Part No.	Product No.	Watts	Pkg.	Min. Brkdown Volt. (V <sub>BR</sub> )	Stand-Off Voltage	1	10	100	1000
254879CH	SA6.0A	500	DO-15	6.67	6.0	.....\$ .23	.....\$ .22	.....\$ .20	.....\$ .14
256701CH	SA12A	500	DO-15	13.3	12.0	......20	......19	......17	......13
254991CH	SA12CA	500	DO-15	13.3	12.0	......30	......29	......27	......24
254983CH	SA13A	500	DO-15	14.4	13.0	.....*	......16	......15	......14
254975CH	SA15A	500	DO-15	16.7	15.0	......24	......23	......22	......19
254967CH	SA20A	500	DO-15	22.2	20.0	......20	......19	......18	......13
254916CH	SA24A	500	DO-15	26.7	24.0	......24	......23	......22	......19
254908CH	SA28A	500	DO-15	31.1	28.0	......24	......23	......22	......19
254895CH	SA30A	500	DO-15	33.3	30.0	......31	......30	......25	......18
254887CH	SA30CA	500	DO-15	33.3	30.0	......46	......37	......28	......17
256663CH	P6KE6.8A	600	DO-15	6.45	5.8	.....*	......19	......18	......15
256647CH	P6KE7.5A	600	DO-15	7.13	6.4	.....*	......19	......17	......14
256639CH	P6KE9.1A	600	DO-15	8.65	7.8	.....*	......19	......165	......14
288999CH	P6KE10A	600	DO-15	9.5	8.55	......43	......332	......185	......122
288981CH	P6KE10CA	600	DO-15	9.5	8.55	.....*	......183	......135	......12
289035CH	P6KE12A	600	DO-15	11.4	10.2	......23	......199	......157	......141
289043CH	P6KE12CA	600	DO-15	11.4	10.2	.....*	......183	......134	......119
255943CH	P6KE16A	600	DO-15	15.2	13.6	......21	......20	......195	......13
255935CH	P6KE16CA	600	DO-15	15.2	13.6	......25	......24	......225	......19
255919CH	P6KE18A	600	DO-15	17.1	15.3	......23	......22	......20	......135
255901CH	P6KE18CA	600	DO-15	17.1	15.3	......23	......22	......20	......136
255863CH	P6KE20A	600	DO-15	19.0	17.1	.....*	......26	......25	......24
272102CH	P6KE22A	600	DO-15	20.9	18.8	.....*	......13	......115	......105
255855CH	P6KE24A	600	DO-15	22.8	20.5	......23	......22	......20	......135
255847CH	P6KE24CA	600	DO-15	22.8	20.5	.....*	......17	......15	......12
255821CH	P6KE27A	600	DO-15	25.7	23.1	......26	......25	......24	......17
255812CH	P6KE27CA	600	DO-15	25.7	23.1	......24	......23	......22	......16
255804CH	P6KE30A	600	DO-15	28.5	25.6	......26	......25	......23	......19
255791CH	P6KE30CA	600	DO-15	28.5	25.6	......26	......25	......23	......19
255783CH	P6KE33A	600	DO-15	31.4	28.2	......25	......24	......23	......18
255775CH	P6KE33CA	600	DO-15	31.4	28.2	......25	......24	......23	......16
255767CH	P6KE36A	600	DO-15	34.2	30.8	......23	......22	......20	......136
255759CH	P6KE39A	600	DO-15	37.1	33.3	......26	......24	......23	......19

## Transient Voltage Suppressors (Continued)

Package (see pg 45)

* Prepackaged: order in increments of 10, 100 or 1000									
Part No.	Product No.	Watts	Pkg.	Min. Brkdown Volt. (V <sub>BR</sub> )	Stand-Off Voltage	1	10	100	1000
255741CH	P6KE39CA	600	DO-15	37.1	33.3	.....*	.....\$ .17	.....\$ .16	.....\$ .15
256698CH	P6KE47A	600	DO-15	44.7	40.2	......20	......19	......18	......13
256680CH	P6KE47CA	600	DO-15	44.7	40.2	.....*	......17	......155	......13
256671CH	P6KE51A	600	DO-15	48.5	43.6	......24	......23	......185	......16
256655CH	P6KE68A	600	DO-15	64.6	58.1	......25	......24	......23	......21
256621CH	P6KE91A	600	DO-15	86.5	77.8	......26	......25	......23	......18
288956CH	P6KE100A	600	DO-15	95	85.5	.....*	......175	......135	......12
316849CH	P6KE100CA	600	DO-15	95	85.5	......42	......34	......185	......18
255951CH	P6KE150CA	600	DO-15	143.0	128.0	......36	......33	......28	......17
255927CH	P6KE180A	600	DO-15	171.0	154.0	......26	......23	......15	......135
255871CH	P6KE200A	600	DO-15	190.0	171.0	......38	......35	......33	......27
255839CH	P6KE250CA	600	DO-15	237.0	214.0	......26	......23	......15	......14
313146CH	SMCJ5.0A	1500	DO-214AB	6.4	5	.....1.04	......82	......468	......332
313120CH	SMCJ5.0CA	1500	DO-214AB	6.4	5	......61	......506	......495	......483
313103CH	SMCJ6.0A	1500	DO-214AB	6.67	6	......73	......56	......55	......54
313218CH	SMCJ10A	1500	DO-214AB	11.1	10	......76	......61	......58	......552
313234CH	SMCJ10CA	1500	DO-214AB	11.1	10	......61	......51	......465	......442
313200CH	SMCJ20A	1500	DO-214AB	22.2	20	......99	......82	......75	......72
313197CH	SMCJ20CA	1500	DO-214AB	22.2	20	......62	......515	......48	......46
313171CH	SMCJ24A	1500	DO-214AB	26.7	24	......73	......60	......57	......54
313189CH	SMCJ24CA	1500	DO-214AB	26.7	24	......76	......58	......302	......255
313162CH	SMCJ36A	1500	DO-214AB	40	36	......45	......365	......302	......255
313154CH	SMCJ36CA	1500	DO-214AB	40	36	.....1.08	......87	......83	......79
313082CH	SMCJ58CA	1500	DO-214AB	64.4	58	.....1.09	......87	......83	......79

## Diac/Triacs/Quadac

Package (see pg 45)

* Prepackaged: order in increments of 10 or 100									
Part No.	Product No.	Mfr.	Pkg.	Type	Rating	1	10	100	
160098CH	HT-32	TEC	DO-35	Diac	27.37 V <sub>BO</sub> , 2A	.....*	.....\$ .13	.....\$ .12	
31819CH	SC146B	◆	TO-220	Triac	200 V <sub>DRM</sub> , 10A (2N6342)	1.29	1.15	.....	.99
31827CH	SC146M	◆	TO-220	Triac	600 V <sub>DRM</sub> , 10A (2N6344)	1.99	1.69	1.49	
160178CH	L401E3	TEC	TO-92	Triac	400 V <sub>DRM</sub> , 1A	.....	.65	.56	.52
160194CH	Q401E3	TEC	TO-92	Triac	400 V <sub>DRM</sub> , 1A	.....	.59	.52	.47
220468CH	L4004F31	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 4A	.....	.81	.77	.73
160186CH	L4004F51	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 4A	.....	.85	.76	.69
220450CH	L4004L3	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 4A	.....\$4.25	1.09	.99	.90
160240CH	Q4004LT	TEC	TO-220AB	Quadac	400 V <sub>DRM</sub> , 4A	.....	1.09	.99	.89
160207CH	Q4008L4	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 8A	.....	1.19	1.06	.97
220492CH	Q4008R4	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 8A	.....	1.05	.97	.89
139336CH	Q4015L5	◆	TO-220AB	Triac	400 V <sub>DRM</sub> , 15A	.....	1.55	1.36	1.25
160143CH	Q4025L6	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 25A	.....	2.59	2.29	1.91
160215CH	Q6008L5	TEC	TO-220AB	Triac	600 V <sub>DRM</sub> , 8A	.....\$4.35	1.15	1.05	.98
160231CH	Q6015L5	TEC	TO-220AB	Triac	600 V <sub>DRM</sub> , 15A	.....	1.79	1.63	1.49
220513CH	Q6025P5	TEC	TO-3	Triac	600 V <sub>DRM</sub> , 25A	.....	7.59	6.75	5.95
220505CH	Q6025R6	TEC	TO-220AB	Triac	600 V <sub>DRM</sub> , 25A	.....	2.25	2.05	1.85
220521CH	Q6035P5	TEC	TO-3	Triac	600 V <sub>DRM</sub> , 35A	.....	9.69	8.69	7.89
140425CH	2N6071A	◆	TO-225AA	Triac	200 V <sub>DRM</sub> , 4A	.....	.29	.27	.24
◆ Jameco Value Offering    TEC = Teccor									

## Diode/Rectifier Assortment Cabinet Kit

420 pcs. (15 types) Diodes, Zener Diodes, Switching and Silicon Rectifiers

SAVE 13%

Includes:

20 drawer component cabinet (319599CH),  
20 clear plastic drawers (319610CH),  
20 clear dividers (319610CH), pg 244 and  
30 adhesive labels for drawers to identify parts in kit



10 each: 1N270, 1N751A, 1N3600, 1N4001, 1N4007, 1N4733A, 1N4735A, 1N4742A, 1N5404, 1N5408, C106B1, KBP04M  
100 each: 1N914, 1N4004, 1N4148

Part No.	Description	Wt. (lbs.)	1	10
82587CH	420 pcs. (15 types) diode kit	5.0 .....	\$39.95	\$35.95
130366CH	Refill for 82587CH (420 pcs.)	0.3 .....	25.95	21.95



## Silicon Controlled Rectifiers (SCR)

Package (see pg 45)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Rating	1	10	100	1000
14859CH	C38M	♦	TO-65	600 PRV, 35A (2N3899)	\$6.89	\$6.19	\$5.59	\$5.05
14736CH	C106B1*	♦	TO-202	200 PRV, 4A (2N6239)†	.67	.54	.46	.40
14752CH	C122B	♦	TO-220	200 PRV, 8A†	.73	.66	.63	.52
14761CH	C122M	♦	TO-220	600 PRV, 8A†	1.35	1.25	1.05	.69
220484CH	EC103B	TEC	TO-92	200 V <sub>DRM</sub> , 0.8A	<del>\$.35</del> .29	.255	.232	.22
220530CH	T106B1	TEC	TO-202AB	200 V <sub>DRM</sub> , 4A	.58	.49	.45	.37
160119CH	T106D1	TEC	TO-202AB	400 V <sub>DRM</sub> , 4A	.59	.51	.46	.36
119802CH	2N5060	♦	TO-92	25 PRV, 0.8A	*	.19	.15	.12
211422CH	2N5061	♦	TO-92	60 PRV, 0.8A	*	.14	.13	.11
120070CH	2N5062	♦	TO-92	100 PRV, 0.8A	*	.19	.155	.145
211431CH	2N5064	♦	TO-92	200 PRV, 0.8A	*	.18	.16	.14
140417CH	2N6507	♦	TO-220AB	400 PRV, 25A	1.05	.99	.85	.75
220548CH	S4025L	TEC	TO-220AB	400 V <sub>DRM</sub> , 25A	1.65	1.47	1.34	1.04
160135CH	S6025L	TEC	TO-220AB	600 V <sub>DRM</sub> , 25A	1.75	1.59	1.43	1.22

† Isolated ♦ Jameco Value Offering TEC = Teccor \* 10 pcs. in Diode/Rectifier cabinet kit, pg 47

## Rectifiers

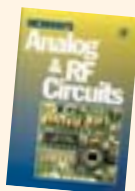
\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Rating	1	10	100	1000
177754CH	T6A05L	♦	T6L	50 PIV, 6A	\$3.31	\$2.28	\$2.25	\$2.23
177762CH	T6A10L	♦	T6L	100 PIV, 6A	.65	.55	.45	.39
177818CH	T6A100L	♦	T6L	1000 PIV, 6A	.65	.59	.49	.39
301444CH	MBR1060	♦	TO-220	60 V <sub>RRM</sub> , 10A	.63	.506	.42	.346
35924CH	1N1188	♦	DO-5	400 PRV, 35A	4.25	3.89	3.27	2.99
35975CH	1N4001*	♦	DO-41	50 PRV, 1A	*	.035	.025	.015
76961CH	1N4002	♦	DO-41	100 PRV, 1A	*	.039	.025	.018
76970CH	1N4003	♦	DO-41	200 PRV, 1A	*	.035	.025	.015
35991CH	1N4004**	♦	DO-41	400 PRV, 1A	*	.04	.025	.02
76988CH	1N4005	♦	DO-41	600 PRV, 1A	*	.035	.025	.015
76996CH	1N4006	♦	DO-41	800 PRV, 1A	*	.035	.025	.015
36011CH	1N4007*	♦	DO-41	1000 PRV, 1A	*	.038	.029	.02
227846CH	1N5059	♦	SOD57	200 V <sub>R</sub> , 2A	*	.12	.10	.075
227854CH	1N5060	♦	SOD57	400 V <sub>R</sub> , 2A	*	.08	.07	.055
227862CH	1N5061	♦	SOD57	600 V <sub>R</sub> , 2A	*	.135	.125	.095
227871CH	1N5062	♦	SOD57	800 V <sub>R</sub> , 2A	*	.09	.08	.07
214543CH	1N5399	♦	DO-15	1000 PRV, 1.5A	*	.05	.035	.02
77075CH	1N5400	♦	DO-27A	50 PRV, 3A	*	.10	.095	.07
36249CH	1N5401	♦	DO-27A	100 PIV, 3A	*	.075	.065	.051
77083CH	1N5402	♦	DO-27A	200 PRV, 3A	*	.085	.075	.056
36265CH	1N5404*	♦	DO-27A	400 PRV, 3A	*	.10	.09	.069
36273CH	1N5408*	♦	DO-27A	1000 PRV, 3A	*	.15	.11	.08
177949CH	1N5817	♦	DO-204AL	20 PIV, 1A	*	.11	.09	.069
177957CH	1N5818	♦	DO-204AL	30 PIV, 1A	*	.09	.08	.055
177965CH	1N5819	♦	DO-204AL	40 PIV, 1A	*	.10	.085	.075
177973CH	1N5820	♦	DO-201AD	20 PIV, 3A	*	.20	.16	.14
177981CH	1N5821	♦	DO-201AD	30 PIV, 3A	*	.19	.16	.15
177990CH	1N5822	♦	DO-201AD	40 PIV, 3A	*	.23	.19	.15

♦ Jameco Value Offering \* 10 pcs./ \*\* 100 pcs. in Diode/Rectifier cabinet kit, pg 47

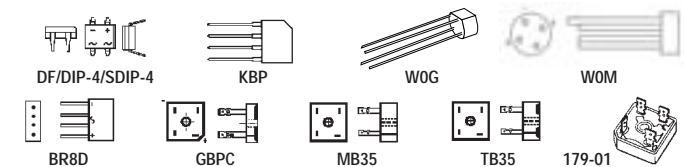
## Hickman's Analog &amp; RF Circuits

**Newnes Publishing** The author, one of the leading analog and RF engineers, uses illustrations and examples rather than mathematical theory to present a wealth of ideas and tips based on his experience. Essential reading for anyone designing analog circuits. Topics include RF amplifiers, oscillator design and behavior, waveform analysis, optoelectronics, filters, and op-amps. (299 pages, 1998)



Part No.	Description	Size	Wt. (lbs.)	Price
200150CH	Analog and RF Circuits	7.4" x 9.2"	1.1	\$55.95

## Bridge Rectifiers



Part No.	Product No.	Mfr.	Pkg.	Rating	1	10	100	1000
178001CH	DF005M	♦	DF	50 PIV, 1A	\$.35	\$.30	\$.22	\$.15
255960CH	DF005S	♦	SDIP-4	50 PIV, 1A	.30	.26	.22	.18
103000CH	DF01M	♦	DF	100 PIV, 1A	.30	.26	.21	.17
103042CH	DF02M	♦	DF	200 PIV, 1A	.35	.30	.22	.17
102971CH	DF04M	♦	DF	400 PIV, 1A	.45	.41	.35	.31
103034CH	DF06M	♦	DF	600 PIV, 1A	.32	.30	.25	.21
103026CH	DF10M	♦	DF	1000 PIV, 1A	.30	.27	.23	.15
256559CH	DF10S	♦	SDIP-4	1000 PIV, 1A	.31	.26	.23	.19
256604CH	DF01S	♦	SDIP-4	100 PIV, 1.5A	.29	.23	.21	.18
256591CH	DF02S	♦	SDIP-4	200 PIV, 1.5A	.30	.25	.22	.16
256583CH	DF04S	♦	SDIP-4	400 PIV, 1.5A	.32	.28	.24	.20
256575CH	DF08M	♦	DIP-4	800 PIV, 1.5A	.35	.30	.25	.18
256567CH	DF08S	♦	SDIP-4	800 PIV, 1.5A	.29	.27	.22	.20
145429CH	KBP02M	♦	KBP	200 PIV, 1.5A	.40	.35	.29	.19
119562CH	KBP04M*	♦	KBP	400 PIV, 1.5A	.45	.32	.23	.19
279494CH	W005G	♦	WOG	50 PIV, 1.5A	.35	.29	.26	.165
103018CH	W02G	♦	WOG	200 PIV, 1.5A	.38	.32	.28	.19
102980CH	W04G	♦	WOG	400 PIV, 1.5A	.36	.27	.18	.17
102998CH	W06G	♦	WOG	600 PIV, 1.5A	.40	.35	.29	.20
179469CH	W08G	♦	WOG	800 PIV, 1.5A	.35	.32	.26	.18
279515CH	W10G	♦	WOG	1000 PIV, 1.5A	.34	.30	.21	.18
178124CH	W005M	♦	WOM	50 PIV, 1.5A	.38	.27	.25	.16
178132CH	W01M	♦	WOM	100 PIV, 1.5A	.36	.27	.20	.17
178141CH	W02M	♦	WOM	200 PIV, 1.5A	.38	.33	.28	.19
178175CH	W08M	♦	WOM	800 PIV, 1.5A	.35	.29	.257	.16
178183CH	BR805D	♦	BR8D	50 PIV, 2A	.55	.49	.39	.35
178204CH	BR82D	♦	BR8D	200 PIV, 2A	.85	.77	.69	.62
178247CH	BR810D	♦	BR8D	1000 PIV, 2A	.59	.49	.39	.35
253260CH	2KBP06M	♦	KBP	600 PIV, 2A	.41	.35	.29	.24
253286CH	2KBP10M	♦	KBP	1000 PIV, 2A	.40	.35	.29	.24
179477CH	GBPC25-01	♦	GBPC	100 PIV, 25A	2.49	2.05	1.65	1.43
179485CH	GBPC25-02	♦	GBPC	200 PIV, 25A	3.25	2.69	2.25	1.65
178280CH	MB254	♦	MB35	400 PIV, 25A	2.55	2.41	2.23	1.55
178335CH	TB252	♦	TB35	200 PIV, 25A	2.09	1.85	1.69	1.50
25574CH	MDA990-3	♦	179-01	200 PIV, 30A	3.99	3.45	2.99	1.85
25591CH	MDA990-6	♦	179-01	600 PIV, 30A	4.59	4.29	3.99	3.59
299882CH	GBPC1204	♦	GBPC	400 V <sub>RRM</sub> , 12A	2.89	2.52	1.35	1.15
299874CH	GBPC1206	♦	GBPC	600 V <sub>RRM</sub> , 12A	3.15	2.67	1.15	1.09
299866CH	GBPC1206W	♦	GBPC	Wire600 V <sub>RRM</sub> , 12A	1.89	1.55	1.10	1.04
178431CH	MB358	♦	MB35	800 PIV, 35A	3.59	3.29	2.75	1.85
178503CH	TB3510	♦	TB35	1000 PIV, 35A	2.99	2.49	2.09	1.96

♦ Jameco Value Offering \* 10 pcs. in Diode/rectifier cabinet kit, pg 47

† DF/KBP/WOG/WOM/179-01 – plastic case; GBPC/TB35 – plastic case, metal base; MB35 – metal case

## Troubleshooting &amp; Repairing Consumer Electronics without a Schematic

**TAB Publishing** Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)

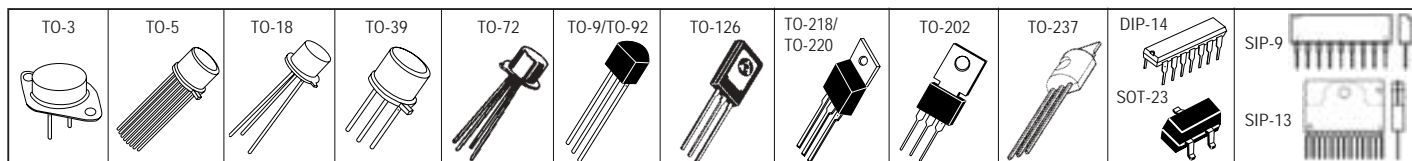
• Size: 7.4" x 9.3" • Weight: 1.1 lbs.



Part No.	Description	Price
136080CH	Troubleshooting & Repairing	\$24.95

Email us 24/7 at [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com) with suggestions for products you'd like to see in future catalogs.

Please call our sales rep if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.



## Analog Circuits

		Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1 10 25
260161CH	NTE778A	DIP-8	Dual operational amplifier	\$2.39 \$2.29 \$2.21
260179CH	NTE823	DIP-8	Low voltage audio amplifier	1.55 1.49 1.45
275442CH	NTE824	DIP-8	Stereo preamp.	2.75 2.62 2.49
275451CH	NTE834	DIP-14	Quad comparator	1.89 1.81 1.65
275469CH	NTE857M	DIP-8	JFET input op amp.	2.95 2.68 2.22
260187CH	NTE858M	DIP-8	Dual low noise JFET input op amp.	2.65 2.41 2.15
260195CH	NTE859	DIP-14	Quad low noise JFET input op amp.	3.75 3.55 3.39
275485CH	NTE891M	DIP-8	Dual audio op amplifier	1.49 1.47 1.44
275522CH	NTE916	DIP-16	NPN transistor array	4.25 3.92 3.59
275557CH	NTE928M	DIP-8	Dual low power op amplifier	2.29 2.05 1.82
275573CH	NTE937M	DIP-8	JFET input op amplifier	2.85 2.55 2.27
275581CH	NTE938M	DIP-8	Precision op amplifier	9.49 9.02 8.56
260216CH	NTE941	TO-5/8	Operational amplifier	5.85 5.69 5.55
260224CH	NTE941M	DIP-8	Operational amplifier	.92 .88 .85
275602CH	NTE941SM	DIP-8	General purpose op amplifier	1.15 1.09 1.04
275611CH	NTE943M	DIP-8	Dual comparator, low power & offset	3.09 2.95 2.67
260232CH	NTE947D	DIP-14	Dual operational amplifier	4.95 4.58 4.07
275629CH	NTE948	DIP-14	Quad op amplifier	3.09 2.78 2.48
260241CH	NTE955M	DIP-8	Timing circuit	1.29 1.25 1.20
275645CH	NTE955MC	DIP-8	CMOS, mono timer	1.35 1.32 1.29
275696CH	NTE975	DIP-8	Op amplifier	2.45 2.33 2.20
275717CH	NTE978	DIP-14	Dual timer	2.49 2.29 1.88
260347CH	NTE987	DIP-14	Quad low power operational amplifier	1.95 1.85 1.80
275733CH	NTE997	DIP-14	Quad op amplifier	3.35 2.85 2.54
260355CH	NTE999	TO-92	Adjustable precision shunt regulator	1.02 .99 .95
272292CH	NTE1232	TO-220/5	Amp, audio power, 8w, 5-p	6.05 5.79 5.52
272305CH	NTE1289	DIP-12	TV vertical deflection system	11.05 10.49 9.95
272399CH	NTE1508	DIP-18	Dot/bar display driver, 10-step	7.25 6.85 6.52
272428CH	NTE1561	SIP-9	5 LED VU level meter	2.85 2.69 2.57
272495CH	NTE1684	SIP-7	TV vertical deflection circuit	4.79 4.69 4.58
260128CH	NTE1714M	DIP-8	Remote control amplifier/driver	4.99 4.19 4.11
272524CH	NTE1729	DIP-16	PWM control circuit	4.19 4.10 4.00
272532CH	NTE1773	SIP-7	Vertical deflection output circuit	2.95 2.89 2.82
272559CH	NTE1782	SIP-7	TV vertical deflection output circuit	4.95 4.83 4.71
272567CH	NTE1784	DIP-16	Horizontal processor	4.39 4.28 4.17
272575CH	NTE1788	SIP-7	TV vertical output	5.79 5.67 5.55
272604CH	NTE1850	SIP-9	Audio amp, dual, 12W/ch	7.69 7.53 7.36
272701CH	NTE2013	DIP-16	7-channel darlington array driver	3.39 3.30 3.21
260136CH	NTE2014	DIP-16	7-channel darlington array driver	2.85 2.69 2.59
260144CH	NTE2018	DIP-18	8-channel darlington array driver	3.29 3.15 3.09
272735CH	NTE2117	DIP-16	MOS 16k DRAM	14.15 13.57 11.88
259291CH	NTE4001B	DIP-14	Quad 2-input NOR gate	.68 .65 .62
259303CH	NTE4006B	DIP-14	18-stage static shift register	2.85 2.77 2.71
273800CH	NTE4011B	DIP-14	CMOS quad 2-input nand gate	.91 .85 .77
259311CH	NTE4013B	DIP-14	Dual-D flip-flop w/ set/reset	1.10 1.06 1.02
273818CH	NTE4017B	DIP-16	CMOS decade counter	1.99 1.89 1.71
273826CH	NTE4026B	DIP-16	CMOS decade counter/divider	2.65 2.58 2.52
259320CH	NTE4049	DIP-16	Hex buffer/converter (inverting)	1.22 1.18 1.14
273834CH	NTE4050B	DIP-16	CMOS hex buffer/converter	1.59 1.55 1.51
259338CH	NTE4066B	DIP-14	Quad bilateral switch	1.42 1.37 1.31
273842CH	NTE4069	DIP-14	CMOS hex inverter, HV	.76 .75 .73
273851CH	NTE4081B	DIP-14	CMOS quad 2-input and gate	.68 .67 .65
259346CH	NTE4093B	DIP-14	Quad 2-input NAND Schmitt trigger	1.05 1.02 .99
273914CH	NTE4538B	DIP-16	CMOS dual multivibrator	1.69 1.65 1.61
273922CH	NTE4584B	DIP-14	CMOS hex Schmitt trigger	1.29 1.25 1.21
275039CH	NTE6403	—	Silicon bilateral switch	7.59 7.42 7.24
275071CH	NTE6800	DIP-40	MPU, NMOS, 8-bit, 1MHz	13.69 13.14 11.51
275080CH	NTE6821	DIP-40	PIA, NMOS, 1MHz	7.39 7.06 6.42
260152CH	NTE7039	SIP-13	Vert. deflection output circuit w/ drive circuit	3.19 3.09 2.99
275098CH	NTE7096	DIP-8	PWM control circuit	2.99 2.87 2.75

## Analog Circuits (Continued)

		Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1 10 25
275101CH	NTE7104	SIP-13	Vertical deflection output circuit	\$2.89 \$2.82 \$2.74
275338CH	NTE75188	DIP-14	DTL quad line driver, RS-232	1.55 1.52 1.48
259397CH	NTE75189	DIP-14	Quad line receiver	1.22 1.18 1.14

## Logic Circuits

		Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1 10 25
275119CH	NTE7400	DIP-14	TTL NAND gate	\$1.25 \$1.17 \$1.08
275223CH	NTE74LS00	DIP-14	TTL NAND gate	.73 .72 .70
275127CH	NTE7402	DIP-14	TTL NOR gate	.95 .92 .89
275194CH	NTE74HC02	DIP-14	Hi-speed CMOS quad 2-in gate	.55 .54 .52
275231CH	NTE74LS02	DIP-14	TTL NOR gate	.73 .72 .70
275240CH	NTE74LS03	DIP-14	TTL NAND gate	.73 .72 .70
275135CH	NTE7404	DIP-14	TTL hex inverter	.84 .82 .80
275258CH	NTE74LS04	DIP-14	TTL hex inverter	.90 .88 .86
275143CH	NTE7406	DIP-14	TTL hex inverter buffer	1.15 1.10 .95
259354CH	NTE7407	DIP-14	Hex buffer/driver	1.29 1.25 1.20
259362CH	NTE7408	DIP-14	Quad 2-input AND gate	1.06 1.03 .99
275266CH	NTE74LS08	DIP-14	TTL AND gate	.80 .78 .76
275274CH	NTE74LS11	DIP-14	TTL AND gate	.72 .70 .68
275207CH	NTE74HC14	DIP-14	Hi-speed CMOS hex schmitt	.65 .64 .62
275151CH	NTE7432	DIP-32	TTL OR gate	1.29 1.26 1.22
275303CH	NTE74LS32	DIP-32	TTL quad 2 input or gate	.86 .83 .81
275160CH	NTE7447	DIP-16	TTL decoder/driver	2.45 2.39 2.32
275178CH	NTE7474	DIP-14	TTL dual "D" flip-flop	.69 .65 .59
259389CH	NTE7475	DIP-16	4-bit bi-stable latch	3.89 3.71 3.54
275320CH	NTE74LS76A	DIP-16	TTL dual flip/flop	.92 .90 .88
275186CH	NTE7490	DIP-14	TTL decade counter	1.45 1.41 1.37
275426CH	NTE8216	DIP-16	Schottky bus driver	4.89 4.52 4.14
273797CH	NTE40106B	DIP-14	CMOS hex Schmitt trigger	1.25 1.22 1.18
259371CH	NTE74121	DIP-14	Monostable multivibrator	2.29 2.21 1.97
275282CH	NTE74LS192	DIP-16	TTL up/down counter	2.49 2.43 2.37
275215CH	NTE74HC244	DIP-20	Hi-speed CMOS octal buffer	1.29 1.27 1.24
275291CH	NTE74LS244	DIP-20	TTL quad driver	3.65 3.55 3.46
275311CH	NTE74LS490	DIP-16	TTL dual decade counter	3.05 2.97 2.90

## Voltage Regulators

		Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1 10 25
261358CH	NTE309K	TO-3	+5V, 1A	\$8.05 \$7.85 \$7.65
275531CH	NTE923	10-Lead MC	+2-37V, 150mA	4.99 4.74 4.50
275549CH	NTE923D	DIP-14	+2-37V, 150mA	1.45 1.38 1.31
260208CH	NTE931	TO-3	+5V, 3A	11.59 11.02 9.86
275565CH	NTE935	TO-3	+1.2-32V, 5A	13.89 13.19 12.53
275637CH	NTE950	TO-92	+12V, 100mA	2.15 2.03 1.92
275653CH	NTE956	TO-220	+1.2-37V, 1.5A	2.25 2.01 1.79
275661CH	NTE957	TO-220	-1.2-37V, 1.5A	3.29 2.76 2.64
260259CH	NTE960	TO-220	+5V, 1A	1.65 1.59 1.53
260267CH	NTE961	TO-220	-5V, 1A	1.65 1.59 1.53
260275CH	NTE962	TO-220	+6V, 1A	1.32 1.28 1.23
260283CH	NTE964	TO-220	+8V, 1A	1.29 1.25 1.19
260291CH	NTE966	TO-220	+12V, 1A	1.65 1.59 1.53
260304CH	NTE967	TO-220	-12V, 1A	1.65 1.59 1.53
260312CH	NTE968	TO-220	+15V, 1A	1.65 1.59 1.53
275670CH	NTE969	TO-220	-15V, 1A	1.65 1.59 1.39
275688CH	NTE970	TO-3	+1.2-33V, 3A	10.55 10.02 9.52
260321CH	NTE971	TO-220	-24V, 1A	4.65 4.39 4.15
260339CH	NTE972	TO-220	+24V, 1A	1.65 1.59 1.53
275709CH	NTE977	TO-92	+5V, 100mA	1.35 1.30 1.15
272541CH	NTE1777	SIP-5	+130V, 1A	12.35 12.01 11.66
272591CH	NTE1840	SIP-5	+41.8V, 2A hybrid switching	13.75 12.65 11.54
272612CH	NTE1910	TO-220	+9V, 1A switching	1.59 1.55 1.51

Please call our sales rep if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.

## Voltage Regulators (Continued)

Package (see pg 49)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
261331CH	NTE1914	TO-3	+12V, 1A .....	\$3.75	\$3.72	\$3.69
261340CH	NTE1915	TO-3	-12V, 1A .....	3.89	3.85	3.79
272621CH	NTE1916	TO-3	+15V, 1.5A .....	4.69	4.49	4.09
272647CH	NTE1936	TO-3P	+12V, 2A .....	6.05	5.90	5.75

## Transistors

Package (see pgs 49)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
272250CH	NTE11	TO-92	NPN silicon, high current amplifier .....	\$1.45	\$1.06	\$ .99
273017CH	NTE24	TO-237	NPN silicon, general-purpose amp., switch ..	1.42	1.17	1.14
273551CH	NTE31	TO-92	NPN silicon, AF driver output .....	2.35	2.27	2.00
273594CH	NTE32	TO-92	PNP silicon, TV sound/vert., AF driver output	2.45	2.37	2.07
273640CH	NTE36	TO-3P	NPN AF power amp., high-curr. switch .....	6.09	5.84	5.59
273658CH	NTE37	TO-3P	PNP AF power amp., high-curr. switch .....	4.65	4.55	4.45
273931CH	NTE46	TO-92	NPN silicon, gen-pur. amp., preamp., driver	1.49	1.45	1.28
261083CH	NTE47	TO-92	NPN high-gain, low-noise .....	.61	.59	.57
261104CH	NTE48	TO-92	NPN darlington, high-current .....	.95	.92	.89
274301CH	NTE51	TO-220	NPN high-voltage high-speed switch .....	3.15	2.99	2.71
274440CH	NTE53	TO-3	NPN hi-speed switch .....	11.39	11.12	10.84
274520CH	NTE54	TO-220	NPN audio power amplifier .....	2.95	2.82	2.56
261112CH	NTE55	TO-220	PNP complementary trans., hi-freq. driver ...	3.55	3.39	3.25
274976CH	NTE60	TO-3	NPN silicon complementary transistor .....	9.49	8.55	7.09
275063CH	NTE68	TO-3	PNP silicon, gen-purpose hi-pwr audio .....	9.85	9.57	9.29
261139CH	NTE85	TO-92	NPN general-purpose amplifier .....	.84	.79	.76
275477CH	NTE89	TO-3	NPN color TV horizontal output .....	10.09	9.56	8.69
275493CH	NTE90	TO-92	NPN general-purpose high-gain amp. ....	1.09	1.04	.95
275506CH	NTE91	TO-92	PNP silicon, gen-purpose hi-gain amp. ....	1.09	1.04	.95
275590CH	NTE94	TO-3	NPN high-voltage switch .....	4.89	4.78	4.67
275725CH	NTE98	TO-3	NPN silicon, HV darl. pwr amp., switch ..	18.39	17.47	16.60
260507CH	NTE100	TO-18	PNP germanium comp. trans. oscillator ...	3.15	3.09	3.04
260515CH	NTE102	TO-18	PNP germanium comp. trans. pwr output driver	3.69	2.49	2.35
272225CH	NTE102A	TO-1	PNP germanium, medium power amp. ....	2.09	2.06	2.03
272233CH	NTE103A	TO-1	NPN darlington power amplifier .....	1.55	1.45	1.39
272241CH	NTE107	TO-92	NPN silicon, UHF oscillator for tuner .....	1.25	1.15	1.06
260523CH	NTE108	TO-92	NPN high-frequency amplifier .....	1.34	1.29	1.24
272284CH	NTE121	TO-3	PNP hi pwr, low coll. sat. volt pwr output ...	10.89	10.15	9.65
260531CH	NTE123	TO-18	NPN general-purpose audio amp., switch ....	.75	.73	.71
260540CH	NTE123A	TO-18	NPN comp. transistor, general-purpose ....	1.07	1.04	.99
260558CH	NTE123AP	TO-92	NPN audio amplifier switch .....	.86	.79	.74
260566CH	NTE128	TO-39	NPN comp. trans., audio output, video driver	1.19	1.15	1.07
260574CH	NTE128P	TO-237	NPN comp. transistor, general-purpose ....	1.29	1.25	1.20
260582CH	NTE129	TO-237	PNP comp. transistor, general-purpose ....	2.25	2.19	2.09
272313CH	NTE129P	TO-237	PNP silicon, general-purpose amp. ....	1.19	1.16	1.02
260591CH	NTE130	TO-3	NPN audio pwr amp., medium speed switch	2.75	2.52	2.29
272401CH	NTE152	TO-220	NPN audio power amplifier .....	1.79	1.75	1.49
272410CH	NTE153	TO-220	PNP silicon, audio power amp., switch ....	2.05	1.96	1.69
260603CH	NTE154	TO-39	NPN high-voltage video output .....	2.85	2.65	2.56
272444CH	NTE157	TO-126	NPN silicon, HV audio power .....	1.75	1.65	1.44
272452CH	NTE158	TO-1	PNP germanium audio power amp. ....	2.15	2.08	2.01
260611CH	NTE159	TO-92	PNP audio amplifier switch .....	.96	.91	.87
272461CH	NTE159M	TO-18	PNP silicon, general-purpose .....	.78	.76	.74
272479CH	NTE160	TO-72	PNP germanium RF-IF amp., FM mixer osc. ...	4.09	3.89	3.55
272516CH	NTE171	TO-202	NPN silicon audio/video amplifier .....	1.85	1.75	1.61
260620CH	NTE172A	TO-92	NPN darlington pre-amp., med. sp. switch ....	.62	.61	.58
260638CH	NTE175	TO-3	NPN comp. trans., hi-volt. med. pwr switch ....	3.29	3.25	3.19
272583CH	NTE180	TO-3	PNP silicon, high-power audio amp. ....	7.79	7.44	6.78
260646CH	NTE181	TO-3	NPN high-power audio amplifier .....	6.59	6.29	6.01
260654CH	NTE184	TO-126	NPN comp. trans. audio pwr amp., switch	1.79	1.75	1.69
260662CH	NTE185	TO-126	PNP comp. trans. audio pwr amp., switch	1.89	1.85	1.77
272639CH	NTE192	TO-92SH	NPN audio power output .....	1.79	1.68	1.53
272655CH	NTE194	TO-92	NPN silicon, audio power amplifier .....	.58	.56	.49
260671CH	NTE196	TO-220	NPN comp. trans. audio pwr output&med. pwr switch	2.45	2.39	2.13
272663CH	NTE197	TO-220	PNP silicon, audio power output .....	2.35	2.24	2.04
272671CH	NTE198	TO-220	NPN silicon, hi-volt power transistor .....	2.55	2.43	2.20
260689CH	NTE199	TO-92	NPN low noise, high-gain amplifier .....	.67	.65	.62
272743CH	NTE219	TO-3	PNP silicon, audio pwr amp., med sp switch ...	4.15	3.97	3.61
272786CH	NTE232	TO-92	PNP silicon, darl. amp., preamp. ....	.78	.75	.66
260777CH	NTE234	TO-92	PNP low-noise, high-gain amplifier .....	.89	.85	.81

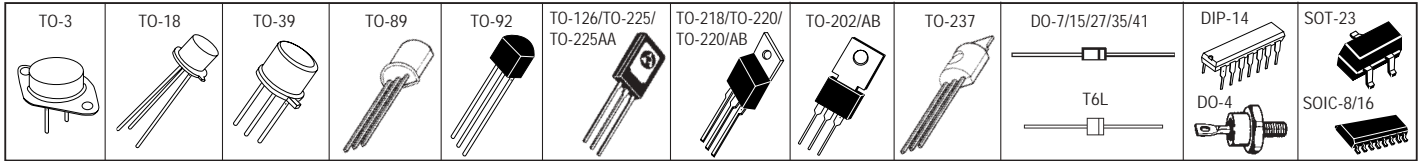
## Transistors (Continued)

Package (see pgs 49)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
272866CH	NTE236	B-26	NPN silicon, RF power output .....	\$9.05	\$7.82	\$7.62
260822CH	NTE238	TO-3	NPN color TV horizontal output .....	5.55	5.49	5.45
273041CH	NTE243	TO-3	NPN darlington medium power amp. ....	3.15	2.92	2.68
260857CH	NTE247	TO-3	NPN comp. trans. darlington power amp. ....	5.29	4.99	4.80
273076CH	NTE248	TO-3	PNP darlington power amplifier .....	6.05	5.59	5.13
273084CH	NTE249	TO-3	NPN darlington power amplifier .....	7.89	7.71	7.53
273121CH	NTE251	TO-3	NPN darlington power amplifier .....	8.19	8.02	7.85
273130CH	NTE252	TO-3	PNP darlington power amplifier .....	7.99	7.82	7.64
260865CH	NTE253	TO-126	NPN comp. trans. darlington power amp. ....	1.55	1.49	1.43
273156CH	NTE254	TO-218	PNP darlington power amplifier .....	2.19	2.10	1.92
260881CH	NTE261	TO-220	NPN comp. trans. darlington power amp. ....	2.29	2.22	2.15
260890CH	NTE262	TO-220	PNP comp. trans. darlington power amp. ....	2.55	2.49	2.40
260902CH	NTE263	TO-220	NPN comp. trans. darlington power amp. ....	2.55	2.39	2.30
260911CH	NTE264	TO-220	PNP comp. trans. darlington power amp. ....	2.89	2.85	2.75
260929CH	NTE265	TO-220	NPN darlington power amplifier .....	3.79	3.74	3.65
273172CH	NTE270	TO-218	NPN darlington power amplifier .....	4.59	4.41	4.07
273181CH	NTE271	TO-218	PNP darl. power amplifier, switch .....	5.79	5.25	4.67
273199CH	NTE272	TO-202	NPN darlington .....	13.95	11.85	11.20
273201CH	NTE283	TO-3	NPN silicon, horizontal output, switch .....	9.79	9.52	9.25
273210CH	NTE284	TO-3	NPN audio power amplifier .....	9.89	9.64	9.38
260937CH	NTE287	TO-92	NPN comp. trans. hi-volt., general-purpose	.87	.85	.80
260945CH	NTE288	TO-92	PNP comp. trans. hi-volt., general-purpose	.80	.74	.65
260953CH	NTE289A	TO-92	NPN comp. transistor audio power amp. ....	1.22	1.19	1.14
273228CH	NTE290	U-83/TO-92	PNP silicon audio power amp., switch .....	1.05	1.03	1.00
260961CH	NTE290A	TO-92	PNP comp. transistor audio power amp. ....	1.38	1.34	1.28
260970CH	NTE291	TO-220	NPN comp. trans. medium power amp., switch	2.15	2.09	2.01
273236CH	NTE292	TO-220	PNP silicon med-pwr amp., switch .....	2.29	2.09	1.73
273244CH	NTE293	TO-92	NPN audio power amp. and driver .....	1.65	1.55	1.41
273252CH	NTE294	TO-92	PNP silicon, audio amp. and driver .....	1.65	1.55	1.41
273261CH	NTE295	TO-126	NPN silicon, RF pwr output, driver .....	2.99	2.77	2.55
260988CH	NTE311	TO-39	NPN frequency multiplier driver, VHF/UHF ..	2.79	2.75	2.67
260996CH	NTE316	TO-39	NPN high-gain, low-noise amp. ....	3.09	3.02	2.95
273615CH	NTE323	TO-39	PNP silicon, general-purpose .....	3.29	3.13	2.85
273623CH	NTE324	TO-39	NPN silicon complementary transistor .....	4.25	3.92	3.59
261008CH	NTE331	TO-220	NPN comp. trans. audio power amp., switch	2.89	2.74	2.61
261016CH	NTE332	TO-220	PNP comp. trans. audio power amp., switch	2.89	2.75	2.62
261024CH	NTE373	TO-126	NPN comp. transistor audio amp. driver ..	1.69	1.64	1.57
261032CH	NTE374	TO-126	PNP comp. transistor audio amp. driver ...	1.75	1.65	1.61
273666CH	NTE375	TO-220	NPN silicon, TV vertical output .....	2.19	2.01	1.66
273674CH	NTE377	TO-220	NPN silicon, pwr amp. driver, output, switch	2.49	2.39	2.16
261041CH	NTE378	TO-220	PNP comp. trans. pwr amp. driver output switch	2.75	2.55	2.46
261059CH	NTE379	TO-220	NPN power amp. high-voltage switch .....	7.15	7.09	6.99
273682CH	NTE382	TO-92	NPN silicon, AF driver output .....	2.05	1.97	1.72
273691CH	NTE383	R-245	PNP silicon, audio frequency driver .....	1.65	1.55	1.41
273703CH	NTE384	TO-66	NPN silicon high-volt. pwr amp., switch ....	5.59	5.35	4.85
273711CH	NTE385	TO-3	NPN silicon, audio power amp., switch ....	8.55	8.37	8.18
273720CH	NTE386	TO-3	NPN silicon, audio power amp., switch ..	17.69	17.22	16.74
273738CH	NTE388	TO-3	NPN silicon, gen-purpose hi-pwr audio ...	11.65	10.99	9.99
273746CH	NTE392	TO-218	NPN silicon, general-purpose amp. ....	5.59	5.33	4.83
273754CH	NTE393	TO-218	PNP silicon, general-purpose amp. ....	5.19	4.97	4.58
273762CH	NTE395	TO-72	PNP silicon, wide-band linear amplifier ....	3.25	2.82	2.63
273771CH	NTE396	TO-39	NPN silicon, pwr amp. & hi-speed switch	2.45	2.37	2.07
261067CH	NTE397	TO-39	PNP power amp. & high-speed switch .....	2.75	2.51	2.23
273789CH	NTE398	TO-220	PNP silicon TV vertical output .....	2.29	2.07	1.71
261075CH	NTE399	TO-92	NPN high-voltage video amp. ....	2.75	2.64	2.52
261091CH	NTE473	TO-39	NPN RF power driver .....	5.19	5.15	5.09
260700CH	NTE2300	TO-3P	NPN high-voltage horizontal output .....	5.09	4.59	4.13
272751CH	NTE2302	TO-3P	NPN silicon, color TV horiz. deflection output	6.29	6.16	6.02
272760CH	NTE2308	TO-3P	NPN silicon, hi-volt, hi-current switch .....	6.49	6.19	5.64
260718CH	NTE2311	TO-218	NPN high-voltage high-speed switch .....	14.25	13.45	12.82
260726CH	NTE2312	TO-220	NPN high-voltage high-speed switch .....	4.75	4.49	4.30
272778CH	NTE2319	TO-3	NPN silicon, hi-volt, hi-speed pwr switch	6.89	6.73	6.56
272794CH	NTE2321	DIP-14	NPN silicon, quad general-purpose .....	3.35	3.00	2.71
260734CH	NTE2322	DIP-14	PNP quad general-purpose .....	2.85	2.57	2.28
260742CH	NTE2324	TO-220	NPN color TV horiz. deflection output .....	8.55	8.15	7.96
272807CH	NTE2325	TO-220	NPN silicon, high-voltage switch .....	2.55	2.15	2.10
272815CH	NTE2328	TO-126	NPN silicon complementary trans. ....	6.69	6.02	5.42



Please call our sales rep if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.



## Transistors (Continued)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
260751CH	NTE2329	TO-126	PNP comp. trans. audio power output ....	\$5.75	\$5.69	\$5.65
260769CH	NTE2331	TO-220	NPN color TV horiz. deflection output w/ damper diode	6.85	6.79	6.75
272823CH	NTE2333	TO-220	NPN silicon, power transistor .....	3.05	2.98	2.91
260785CH	NTE2343	TO-220	NPN comp. trans., darlington pwr amp., switch	2.09	1.95	1.92
272831CH	NTE2354	TO-3P	NPN silicon, hi-volt horizontal output ....	11.69	11.05	10.04
272840CH	NTE2355	TO-92	NPN silicon w/ 10k bias resistor .....	.84	.81	.74
260793CH	NTE2344	TO-220	PNP comp. trans., darlington pwr amp., switch...	1.65	1.55	1.51
260806CH	NTE2349	TO-3	NPN darlington trans., hi-curr. gen-purpose	15.65	15.39	15.25
260814CH	NTE2353	TO-220	NPN TV horiz. deflection output w/ damper diode	5.75	5.69	5.65
272858CH	NTE2356	TO-92	PNP silicon, w/ 2 10k bias resistors .....	.78	.65	.63
272874CH	NTE2361	TO-92	NPN silicon, high-speed switch .....	.62	.60	.55
272882CH	NTE2362	TO-92	PNP silicon, high-speed switch .....	.96	.79	.77
272891CH	NTE2363	TO-92	NPN silicon, hi-curr. gen-pur. amp./switch ....	.75	.62	.60
272903CH	NTE2365	TO-126	NPN silicon, hi-volt TV horiz defl. output ....	14.79	14.44	14.09
273025CH	NTE2406	SOT-23	NPN silicon, gen-purpose amp., SMT .....	1.45	1.39	1.28
273033CH	NTE2407	SOT-23	PNP silicon, gen-purpose amp., SMT .....	1.55	1.49	1.37
260831CH	NTE2408	SOT-23	NPN general-purpose amp. (2/pk.) .....	1.25	1.19	1.15
260849CH	NTE2409	SOT-23	PNP general-purpose amp. (2/pk.) .....	1.25	1.19	1.15
273050CH	NTE2430	SOT-89	NPN silicon, high-volt amp./switch .....	1.75	1.71	1.67
273068CH	NTE2431	SOT-89	PNP silicon, high-volt amp./switch .....	1.59	1.55	1.51
273092CH	NTE2501	TO-126ML	NPN silicon, high-volt for video output ....	1.75	1.66	1.51
273105CH	NTE2507	TO-220	NPN silicon high-freq. video output .....	5.95	5.33	4.79
273113CH	NTE2508	TO-126ML	NPN video output for HDTV .....	1.49	1.45	1.41
273148CH	NTE2521	TO-126ML	NPN video output for HDTV .....	5.15	4.45	4.19
260873CH	NTE2543	TO-220	NPN darlington motor/relay driver .....	3.29	3.25	3.19
273164CH	NTE2582	TO-220	NPN silicon hi-speed switching reg. ....	4.19	4.10	4.01
275012CH	NTE6401	TO-18	Silicon unijunction .....	5.65	5.51	5.37
275021CH	NTE6402	TO-98/TO-92	Silicon programmable unijunction .....	1.39	1.35	1.18
275047CH	NTE6409	TO-18	Silicon unijunction .....	6.05	5.92	5.78
261121CH	NTE6410	TO-92	Unijunction transistor .....	4.79	4.75	4.69
272487CH	NTE16004	TO-39	PNP silicon, hi-current, gen-purpose .....	1.79	1.75	1.70

## JFETs

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
272321CH	NTE133	TO-106	N-ch JFET general-purpose AF amp. ....	\$9.1	\$8.9	\$8.7
273578CH	NTE312	TO-92	N-ch JFET .....	1.25	1.23	1.20
273631CH	NTE326	TO-92	P-ch JFET general-purpose AF amp. ....	1.45	1.39	1.26
273906CH	NTE451	TO-92	N-ch JFET UHF/VHF amplifier .....	1.65	1.61	1.57
260427CH	NTE457	TO-92	N-ch JFET general-purpose .....	1.04	.99	.95
260435CH	NTE458	TO-92	N-ch JFET low-noise, audio-freq. amp. ....	1.69	1.65	1.59
273949CH	NTE466	TO-18	N-ch JFET chopper, high-speed switch ....	2.79	2.56	2.33

## MOSFETs

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
275055CH	NTE66	TO-220	N-ch enhancement mode hi-speed switch	\$6.89	\$6.58	\$5.99
260443CH	NTE222	TO-39	Dual gate N-channel MOSFET .....	10.55	9.59	8.95
273957CH	NTE490	TO-92	N-ch enhancement mode hi-speed switch ....	.81	.80	.78
273981CH	NTE491	TO-92	N-ch enhancement mode hi-speed switch ....	.63	.62	.60
272911CH	NTE2371	TO-220	P-ch enhancement mode .....	6.89	6.75	6.61
272920CH	NTE2374	TO-220	N-ch enhancement mode .....	4.29	4.00	3.70
272938CH	NTE2377	TO-3P	N-ch enhancement mode hi-speed switch ..	10.85	10.55	10.24
272946CH	NTE2379	TO-220	N-ch enhancement mode .....	4.09	4.00	3.91
272954CH	NTE2382	TO-220	N-ch enhancement mode hi-speed switch ....	3.59	3.43	3.11
272962CH	NTE2383	TO-220	P-ch enhancement mode hi-speed switch ....	7.89	7.54	6.86
272971CH	NTE2385	TO-220	N-ch enhancement mode hi-speed switch ....	5.59	4.77	4.53
272989CH	NTE2387	TO-220	N-ch enhancement mode hi-speed switch ....	9.79	9.56	9.32
272997CH	NTE2388	TO-220	N-ch enhancement mode hi-speed switch ....	6.09	5.67	5.04
260451CH	NTE2389	TO-220	N-ch enhancement mode hi-speed switch ....	5.35	5.15	4.91
260460CH	NTE2394	TO-126	N-ch enhancement mode hi-speed switch ...	11.25	11.19	11.09
260478CH	NTE2395	TO-220	N-ch enhancement mode hi-speed switch ....	5.59	5.39	5.15
273009CH	NTE2396	TO-220	N-ch enhancement mode hi-speed switch ....	5.09	4.59	4.13

## MOSFETs (Continued)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
260486CH	NTE2397	TO-220	N-ch enhancement mode hi-speed switch ..	\$5.59	\$5.39	\$5.15
260494CH	NTE2398	TO-220	N-ch enhancement mode hi-speed switch ....	3.75	3.69	3.65
273279CH	NTE2987	TO-220	N-ch enhancement mode hi-speed switch ....	6.59	6.44	6.29

## Diodes

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
259418CH	NTE109	DO-7	Germanium fast switching .....	\$1.18	\$1.14	\$1.10
272268CH	NTE110A	DO-7	Germanium general-purpose .....	1.09	.99	.89
272276CH	NTE110MP	DO-7	Germanium point contact .....	1.55	1.47	1.39
259426CH	NTE112	DO-35	Silicon small signal schottky .....	1.48	1.34	1.20
259434CH	NTE177	DO-35	Silicon general-purpose .....	.30	.28	.26
259442CH	NTE519	DO-7	Silicon ultra-fast switch .....	.34	.31	.29
274431CH	NTE525	DO-41	Silicon high-volt, fast-recovery switch ....	2.55	2.44	2.20
274634CH	NTE553	DO-35	Schottky barrier diode .....	.91	.89	.87
259451CH	NTE570	DO-7	Silicon controlled avalanche diode .....	1.23	1.19	1.15
259469CH	NTE583	DO-7	Schottky RF switch .....	1.27	1.22	1.19
274853CH	NTE585	DO-41	Schottky barrier, fast switching .....	.92	.91	.78
274861CH	NTE586	DO-27	Schottky barrier, fast switching .....	1.75	1.67	1.59
274870CH	NTE587	DO-41	Silicon ultra-fast switching .....	.82	.80	.69
259477CH	NTE588	DO-7	Silicon 200V, 3A fast switch .....	1.25	1.21	1.16
274917CH	NTE593	SOT-23	Silicon, high-speed switch .....	1.75	1.68	1.59
274925CH	NTE596	SOT-23	Silicon, dual diode, common anode .....	1.69	1.65	1.61
259485CH	NTE618	—	Silicon tuning diode for AM radio, varactor ...	1.79	1.75	1.69

## Zener Diodes

Package (see above)

Part No.	Cross Ref.	Pkg.	Voltage	Wattage	Qty.	1	10	25
274028CH	NTE5002A	DO-35	2.7V	1/2W	1/pk. ....	\$ .73	\$ .72	\$ .70
274036CH	NTE5004A	DO-35	3V	1/2W	1/pk. ....	.73	.72	.70
274044CH	NTE5005A	DO-35	3.3V	1/2W	1/pk. ....	.73	.72	.70
274052CH	NTE5007A	DO-35	3.9V	1/2W	1/pk. ....	.51	.48	.44
274061CH	NTE5009A	DO-35	4.7V	1/2W	1/pk. ....	.51	.48	.44
259565CH	NTE5010A	DO-35	5.1V	1/2W	1/pk. ....	.39	.36	.33
274079CH	NTE5011A	DO-35	5.6V	1/2W	1/pk. ....	.51	.48	.43
274087CH	NTE5012A	DO-35	6V	1/2W	1/pk. ....	.73	.72	.70
274095CH	NTE5013A	DO-35	6.2V	1/2W	1/pk. ....	.51	.48	.44
274108CH	NTE5014A	DO-35	6.8V	1/2W	1/pk. ....	.51	.48	.44
274116CH	NTE5015A	DO-35	7.5V	1/2W	1/pk. ....	.73	.72	.70
274124CH	NTE5018A	DO-35	9.1V	1/2W	1/pk. ....	.73	.72	.70
274132CH	NTE5019A	DO-35	10V	1/2W	1/pk. ....	.49	.48	.42
259573CH	NTE5021A	DO-35	12V	1/2W	1/pk. ....	.49	.45	.40
259581CH	NTE5024A	DO-35	15V	1/2W	1/pk. ....	.49	.48	.47
274141CH	NTE5031A	DO-35	24V	1/2W	1/pk. ....	.73	.72	.70
274159CH	NTE5035A	DO-35	30V	1/2W	1/pk. ....	.73	.72	.70
274167CH	NTE5057A	DO-35	170V	1/2W	1/pk. ....	.73	.72	.70
272330CH	NTE134A	DO-35	3.6V	1W	2/pk. ....	.52	.50	.48
259493CH	NTE135A	DO-35	5.1V	1W	2/pk. ....	.53	.51	.49
259506CH	NTE136A	DO-35	5.6V	1W	2/pk. ....	.44	.41	.39
272348CH	NTE137A	DO-35	6.2V	1W	2/pk. ....	.56	.54	.47
259514CH	NTE138A	DO-35	7.5V	1W	2/pk. ....	.53	.50	.47
272356CH	NTE139A	DO-35	9.1V	1W	2/pk. ....	.52	.49	.47
272364CH	NTE140A	DO-35	10V	1W	2/pk. ....	.52	.50	.47
259522CH	NTE142A	DO-35	12V	1W	2/pk. ....	.56	.55	.53
259531CH	NTE143A	DO-35	13V	1W	2/pk. ....	.44	.41	.39
272372CH	NTE144A	DO-35	14V	1W	2/pk. ....	.63	.60	.57
259549CH	NTE145A	DO-35	15V	1W	2/pk. ....	.44	.41	.39
272381CH	NTE146A	DO-35	27V	1W	2/pk. ....	.51	.49	.44
259557CH	NTE147A	DO-35	33V	1W	2/pk. ....	.44	.41	.39
274183CH	NTE5066A	DO-35	3.3V	1W	2/pk. ....	2.15	2.12	2.08
274191CH	NTE5069A	DO-35	4.7V	1W	2/pk. ....	1.45	1.39	1.26
274204CH	NTE5071A	DO-35	6.8V	1W	2/pk. ....	1.45	1.39	1.26
274212CH	NTE5072A	DO-35	8.2V	1W	2/pk. ....	1.85	1.81	1.77

Please call our sales rep if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.

## Zener Diodes (Continued)

Package Description (see pg 51)

Part No.	Cross Ref.	Pkg.	Voltage	Wattage	Qty.	1	10	25
274221CH	NTE5075A	DO-35	16V	1W	2/pk.	\$1.85	\$1.81	\$1.77
259590CH	NTE5077A	DO-35	18V	1W	2/pk.	1.42	1.38	1.32
274239CH	NTE5079A	DO-35	20.0V	1W	2/pk.	1.45	1.39	1.26
274247CH	NTE5080A	DO-35	22.0V	1W	2/pk.	2.15	2.12	2.08
274255CH	NTE5081A	DO-35	24V	1W	2/pk.	1.85	1.81	1.77
274263CH	NTE5084A	DO-35	30V	1W	2/pk.	1.45	1.39	1.26
274271CH	NTE5085A	DO-35	36V	1W	2/pk.	1.85	1.81	1.77
274280CH	NTE5093A	DO-35	75V	1W	2/pk.	1.85	1.81	1.77
274298CH	NTE5096A	DO-35	100V	1W	2/pk.	1.85	1.81	1.77
274319CH	NTE5100A	DO-35	150V	1W	2/pk.	1.45	1.38	1.20
259602CH	NTE5105A	DO-35	200V	1W	2/pk.	1.85	1.57	1.17
274327CH	NTE5116A	DO-35	5.1V	5W	1/pk.	2.05	2.00	1.95
274335CH	NTE5127A	DO-35	12V	5W	1/pk.	1.45	1.39	1.26
259611CH	NTE5130A	DO-35	15V	5W	1/pk.	1.46	1.39	1.32
274343CH	NTE5131A	DO-35	16V	5W	1/pk.	2.05	2.00	1.95
274351CH	NTE5133A	DO-35	18V	5W	1/pk.	2.05	2.00	1.95
274360CH	NTE5137A	DO-35	24V	5W	1/pk.	1.45	1.38	1.20
274378CH	NTE5139A	DO-35	27V	5W	1/pk.	2.05	1.99	1.95
259629CH	NTE5141A	DO-35	30V	5W	1/pk.	2.05	2.01	1.97
274386CH	NTE5142A	DO-35	33V	5W	1/pk.	1.25	1.15	1.01
274394CH	NTE5147A	DO-35	51V	5W	1/pk.	2.05	1.99	1.95
259637CH	NTE5164A	DO-35	180V	5W	1/pk.	2.05	2.01	1.97

## Transient Voltage Suppressors

Package Description (see pg 51)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
261278CH	NTE4900	DO-35	5.0V	\$2.19	\$2.15	\$2.09
273965CH	NTE4902	DO-15	6.45V <sub>BR</sub> 5.80V	3.39	3.32	3.23
273973CH	NTE4903	DO-15	6.12V <sub>BR</sub> 5.50V	3.39	3.31	3.22
273990CH	NTE4928	DO-15	19V <sub>BR</sub> 17.1V	2.39	2.33	2.27
274001CH	NTE4951	DO-15	48.5V <sub>BR</sub> 43.6V	3.39	3.31	3.22
274010CH	NTE4993	DO-15	304V <sub>BR</sub> 273V	1.85	1.50	1.46

## Rectifiers

Package Description (see pg 51)

Part No.	Cross Ref.	Pkg.	Description	PRV	AFC	1	10	25
259813CH	NTE116	DO-41	Rectifier	600V	1A	\$4.49	\$4.45	\$4.42
259821CH	NTE125	DO-41	Rectifier	1000V	2.5A	.50	.48	.45
259830CH	NTE156	DO-41	Rectifier	1000V	3A	.67	.63	.60
272436CH	NTE156A	—	Rectifier	1000V	3A	.72	.67	.61
259645CH	NTE506	DO-41	Rectifier	1400V	2A	1.10	1.06	1.02
274407CH	NTE517	—	Rectifier	15000V	200A	5.05	4.95	4.85
259848CH	NTE541	DO-35	Rectifier	8400V	50A	8.39	8.29	8.25
259856CH	NTE552	DO-41	Rectifier	600V	1A	.93	.90	.87
259864CH	NTE558	DO-41	Rectifier	1500V	1A	1.69	1.63	1.57
259872CH	NTE569	DO-41	Rectifier	600V	3A	1.12	1.03	.95
274781CH	NTE571	—	Rectifier	1000V	2.9A	.64	.61	.58
274790CH	NTE572	—	Rectifier	1000V	6A	1.05	1.03	1.00
259881CH	NTE574	DO-41	Rectifier	400V	1A	.58	.53	.48
274811CH	NTE575	DO-41	Rectifier	1000V	1A	.67	.65	.56
259899CH	NTE576	DO-41	Rectifier	400V	5A	1.85	1.79	1.73
274829CH	NTE579	DO-27	Rectifier	90V	3A	2.59	2.39	2.19
259901CH	NTE577	DO-41	Rectifier	1000V	5A	3.59	3.45	3.33
259910CH	NTE580	SOD57	Rectifier	600V	3A	2.75	2.59	2.47
274933CH	NTE597	TO-220	Rectifier	200V	8A	1.69	1.61	1.53
260021CH	NTE598	TO-220/2	Rectifier	600V	8A	2.15	2.11	2.08
274992CH	NTE622	DO-213AA	Rectifier	400V	0.5A	2.29	2.26	2.22
274802CH	NTE5740	—	Rectifier	800V	30A	36.79	29.43	28.15
259928CH	NTE5800	DO-41	Rectifier	50V	3A	.33	.31	.30
259936CH	NTE5801	DO-41	Rectifier	100V	3A	.48	.45	.44
274837CH	NTE5802	DO-27	Rectifier	200V	3A	.58	.53	.50
259944CH	NTE5804	DO-41	Rectifier	400V	3A	.60	.56	.54
259952CH	NTE5806	DO-41	Rectifier	600V	3A	.94	.92	.88
274845CH	NTE5808	DO-27	Rectifier	800V	3A	1.19	1.10	.99
259961CH	NTE5809	DO-41	Rectifier	1000V	3A	1.39	1.31	1.25
259979CH	NTE5812	T6L	Rectifier	100V	6A	.91	.87	.84
259987CH	NTE5814	T6L	Rectifier	400V	6A	2.59	1.45	1.40
259995CH	NTE5815	T6L	Rectifier	600V	6A	2.49	2.27	2.15
260005CH	NTE5817	T6L	Rectifier	1000V	6A	2.29	2.14	2.04

## Rectifiers (Continued)

Package Description (see pgs 51)

Part No.	Cross Ref.	Pkg.	Description	PRV	AFC	1	10	25
260013CH	NTE5870	DO-4	Rectifier	50V	12A	\$2.59	\$2.49	\$2.38
274888CH	NTE5874	DO-4	Rectifier	200V	12A	3.35	2.82	2.50
274896CH	NTE5882	DO-4	Rectifier	600V	12A	4.49	4.27	4.05
274909CH	NTE5890	DO-4	Rectifier	1000V	12A	8.69	7.38	6.55
274941CH	NTE5980	DO-4	Rectifier	50V	40A	3.89	3.80	3.70
274950CH	NTE5994	DO-4	Rectifier	600V	40A	8.65	8.45	8.25
274968CH	NTE5995	DO-4	Rectifier	600V	40A	8.65	8.45	8.25
260030CH	NTE6013	TO-220	Rectifier	600V	12.7A isolated	3.75	3.69	3.61
274984CH	NTE6154	DO-8	Rectifier	400V	150A	26.59	25.93	25.28
260048CH	NTE6240	TO-220	Rectifier	200V	16A	3.95	3.77	3.59
275004CH	NTE6244	TO-220	Rectifier, dual	200V	16A	4.89	4.78	4.67
259653CH	NTE166	BR8D	Bridge rectifier	100V	2A	1.10	1.06	1.02
259661CH	NTE167	BR8D	Bridge rectifier	200V	2A	1.75	1.69	1.62
259670CH	NTE168	BR8D	Bridge rectifier	400V	2A	1.95	1.86	1.79
272508CH	NTE169	BR8D	Bridge rectifier	600V	2A	2.09	2.02	1.78
259688CH	NTE170	BR8D	Bridge rectifier	1000V	2A	2.85	2.79	2.75
259696CH	NTE5304	WOM	Bridge rectifier	400V	1.5A	1.32	1.28	1.23
259709CH	NTE5305	WOM	Bridge rectifier	600V	1.5A	1.47	1.42	1.39
274458CH	NTE5309	BR8D	Bridge rectifier	200V	4A	2.79	2.73	2.66
274466CH	NTE5310	BR8D	Bridge rectifier	600V	4A	2.79	2.42	2.22
259717CH	NTE5312	GBPC	Bridge rectifier	100V	8A	3.89	3.70	3.53
259725CH	NTE5313	GBPC	Bridge rectifier	200V	8A	3.79	3.65	3.48
259733CH	NTE5314	GBPC	Bridge rectifier	400V	8A	3.95	3.74	3.59
274474CH	NTE5315	GBPC	Bridge rectifier	600V	8A	4.45	4.08	3.63
274482CH	NTE5318	—	Bridge rectifier	200V	4A	2.19	2.14	2.08
259741CH	NTE5322	TB35	Bridge rectifier	200V	25A	5.65	5.38	5.13
274491CH	NTE5324	TB35	Bridge rectifier	400V	25A	5.99	5.84	5.69
259750CH	NTE5326	TB35	Bridge rectifier	600V	25A	7.59	7.20	6.90
274503CH	NTE5328	TB35	Bridge rectifier	1000V	25A	7.89	7.69	7.50
259768CH	NTE5329	BR8D	Bridge rectifier	200V	6A	3.65	3.46	3.30
274511CH	NTE5330	BR8D	Bridge rectifier	600V	6A	5.15	5.02	4.90
259776CH	NTE5332	DIP-4	Bridge rectifier	600V	1A	1.49	1.45	1.39
259784CH	NTE5340	—	Bridge rectifier	200V	40A	8.99	8.57	8.17
259792CH	NTE5342	—	Bridge rectifier	600V	40A	11.39	10.79	10.24
259805CH	NTE5344	—	Bridge rectifier	1000V	40A	12.79	12.29	11.80

## Silicon Controlled Rectifiers (SCR)

Package Descrip. (see pg 51)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
274538CH	NTE5400	TO-92	30 VRM, 0.8A	\$ .79	\$ .62	\$ .60
260056CH	NTE5401	TO-92	60 VRM, 0.8A	.97	.91	.87
260064CH	NTE5402	TO-92	100 VRM, 0.8A	.97	.89	.78
260072CH	NTE5404	TO-92	200 VRM, 0.8A	1.33	1.29	1.25
274546CH	NTE5405	TO-92	400 VRM, 0.8A	2.19	2.14	2.08
274554CH	NTE5414	TO-126	200 VRM, 4A	1.65	1.61	1.57
274562CH	NTE5424	TO-220	400 VRM, 4.7A, high speed	6.45	6.31	6.17
274571CH	NTE5426	TO-220	400 VRM, 10A	2.59	2.48	2.26
274589CH	NTE5437	TO-220	400 VRM, 8A	2.15	2.10	2.04
274597CH	NTE5455	TO-202	200 VRM, 4A	1.19	1.12	1.02
260081CH	NTE5457	TO-202	400 VRM, 4A	1.33	1.29	1.25
260099CH	NTE5458	TO-220	600 PRV, 4A	2.05	1.99	1.94
274600CH	NTE5460	TO-220	800 VRM, 25A	10.29	10.03	9.76
274618CH	NTE5465	TO-202	400 VRM, 10A	2.75	2.59	2.36
274626CH	NTE5466	TO-202	600 VRM, 10A	4.19	4.00	3.80
274642CH	NTE5547	TO-48	600 VRM, 35A	15.65	15.24	14.83

## Diacs/Triacs/Sidacs

Package Description (see pg 51)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
274693CH	NTE5608	TO-220	Triac, 400 VRM, 8A, gate	\$2.55	\$2.33	\$1.93
274706CH	NTE5609	TO-220	Triac, 600 VRM, 8A, gate	3.45	3.37	3.28
274714CH	NTE5620	TO-220	Triac, 800 VRM, 8A, isolated	5.35	4.62	4.50
261147CH	NTE5629	TO-202	Triac, 400 VRM, 4A	1.99	1.89	1.81
274722CH	NTE5635	TO-220	Triac, 400 VRM, 10A	3.49	3.22	2.86
274731CH	NTE5638	TO-220	Triac, 400 VRM, 8A isolated tab	3.05	2.97	2.89
274749CH	NTE5645	TO-220	Triac, 600 VRM, 10A, isolated tab	3.69	3.60	3.51
261155CH	NTE5656	TO-9	Triac, 400 VRM, 0.8A	1.08	1.05	.99
274757CH	NTE5671	TO-220	Triac, 800 VRM, 20A, isolated	5.55	5.45	5.34
274765CH	NTE5679	—	Triac, 600 VRM, 40A	17.19	16.34	15.52

Please call our sales rep if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.

261307CH  
Size: 16mm261163CH  
Thermal Fuse260363CH  
SIP-9260371CH  
T-1 1/4260380CH  
DIP-6259178CH  
DIP-16259186CH  
DIP-8259160CH  
TO-220

## Diacs/Triacs/Sidacs (Continued)

Package (see pg 51)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
260110CH	NTE6404	TO-89	SUS, SI, 1.0A	\$8.85	\$8.79	\$8.75
259400CH	NTE6408	DO-35	Diac	.94	.90	.87
260101CH	NTE6419	—	Sidac, 110-125V	2.05	1.99	1.91
274651CH	NTE56008	TO-220	Triac, 600 VRM, 15A	5.09	4.86	4.42
274669CH	NTE56020	TO-220	Triac, 400 VRM, 25A	7.45	7.28	7.10
274677CH	NTE56024	TO-48	Triac, 400 VRM, 40A	13.75	13.38	13.00
274685CH	NTE56026	TO-48	Triac, 600 VRM, 40A	15.55	15.13	14.71

## Varistors (MOVs)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
272680CH	NTE1V010	8.5mm	10V <sub>RMS</sub> , 12VDC, 0.8 joules	\$1.07	\$ .87	\$ .85
261286CH	NTE1V020	8.5mm	20V <sub>RMS</sub> , 26VDC, 1.5 joules	1.03	.99	.95
272698CH	NTE1V030	8.5mm	30V <sub>RMS</sub> , 38VDC, 2.3 joules	1.19	1.15	1.11
261294CH	NTE1V130	8.5mm	135V <sub>RMS</sub> , 180VDC, 10 joules	1.08	1.03	.99
273287CH	NTE2V010	16mm	10V <sub>RMS</sub> , 12VDC, 3.5 joules	1.85	1.81	1.76
273295CH	NTE2V025	16mm	25V <sub>RMS</sub> , 31VDC, 7.0 joules	1.85	1.81	1.76
273308CH	NTE2V030	16mm	30V <sub>RMS</sub> , 38VDC, 8.5 joules	1.85	1.81	1.76
273316CH	NTE2V035	16mm	35V <sub>RMS</sub> , 45VDC, 10 joules	1.69	1.40	1.37
273324CH	NTE2V095	16mm	95V <sub>RMS</sub> , 125VDC, 29 joules	1.85	1.81	1.76
261307CH	NTE2V130	16mm	135V <sub>RMS</sub> , 180VDC, 39 joules	1.85	1.79	1.75
273332CH	NTE2V150	16mm	150V <sub>RMS</sub> , 210VDC, 40 joules	2.19	2.14	2.08
261315CH	NTE2V250	16mm	240V <sub>RMS</sub> , 320VDC, 70 joules	2.65	2.54	2.41
273341CH	NTE2V275	16mm	275V <sub>RMS</sub> , 330VDC, 72 joules	2.69	2.62	2.55
274415CH	NTE524V13	23mm	130V <sub>RMS</sub> , 180VDC, 72 joules	2.65	2.40	1.99
274423CH	NTE524V15	23mm	150V <sub>RMS</sub> , 210VDC, 80 joules	2.75	2.68	2.61
261323CH	NTE524V25	23mm	240V <sub>RMS</sub> , 320VDC, 129 joules	2.39	2.35	2.29

## Thermal Fuses

Package (see above)

Part No.	Cross Ref.	Description	Dimensions	1	10	25
275346CH	NTE8070	TCO 72°C, 162°F	3.2"L x .157"Dia.	\$1.15	\$1.12	\$1.09
261163CH	NTE8076	TCO 77°C, 171°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275354CH	NTE8081	TCO 84°C, 184°F	3.2"L x .157"Dia.	1.15	1.11	1.07
261171CH	NTE8085	TCO 87°C, 189°F	3.2"L x .157"Dia.	1.27	1.23	1.18
261180CH	NTE8090	TCO 93°C, 200°F	3.2"L x .157"Dia.	1.13	1.09	1.05
261198CH	NTE8096	TCO 98°C, 208°F	3.2"L x .157"Dia.	1.13	1.09	1.05
261201CH	NTE8098	TCO 100°C, 212°F	3.2"L x .157"Dia.	1.13	1.09	1.05
261219CH	NTE8103	TCO 104°C, 220°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275362CH	NTE8108	TCO 109°C, 229°F	3.2"L x .157"Dia.	1.15	1.05	.95
275371CH	NTE8115	TCO 117°C, 243°F	3.2"L x .157"Dia.	1.19	1.16	1.13
261227CH	NTE8118	TCO 121°C, 250°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275389CH	NTE8125	TCO 128°C, 263°F	3.2"L x .157"Dia.	1.15	1.11	1.07
261235CH	NTE8139	TCO 141°C, 286°F	3.2"L x .157"Dia.	1.27	1.23	1.18
275397CH	NTE8149	TCO 152°C, 306°F	3.2"L x .157"Dia.	1.19	1.11	1.03
275400CH	NTE8167	TCO 169°C, 336°F	3.2"L x .157"Dia.	1.15	1.05	.95
261243CH	NTE8181	TCO 184°C, 364°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275418CH	NTE8182	TCO 192°C, 378°F	3.2"L x .157"Dia.	2.69	2.59	2.30
261251CH	NTE8213	TCO 216°C, 421°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275434CH	NTE8226	TCO 228°C, 443°F	3.2"L x .157"Dia.	1.15	1.11	1.07
261260CH	NTE8242	TCO 240°C, 464°F	3.2"L x .157"Dia.	1.13	1.09	1.05

## LEDs

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
260363CH	NTE1866	SIP-9	5-point LED VU scale bar level meter driver	\$2.05	\$1.96	\$1.93
273359CH	NTE3007	T1	Red, 4/pk.	1.65	1.61	1.57
273367CH	NTE3008	T1	Red, 2/pk.	1.03	.84	.82
273375CH	NTE3010	T1	Green, 2/pk.	1.15	1.11	1.06
273383CH	NTE3020	T1 3/4	Red, 2/pk.	1.01	.84	.82
273391CH	NTE3021	T1 3/4	Yellow, 2/pk.	1.22	.99	.97
273404CH	NTE3022	T1 3/4	Red, 2/pk.	1.10	.90	.88
260371CH	NTE3024*	T1 3/4	Green 5mm, 2.1Vf@20mA, 8.7mcd@10mA, 565nm	1.31	1.24	1.19

\* 2 ea. per pack

## LEDs (Continued)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
273412CH	NTE3028	—	Infrared, PN, GAAS	\$4.99	\$4.87	\$4.75
273586CH	NTE3188	T1 3/4	LED-white clear	2.25	2.07	1.88

## Optoisolators

Package (see pg 51 &amp; above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
273421CH	NTE3032	TO-18	NPN phototransistor detector	\$11.15	\$10.84	\$10.52
273439CH	NTE3034A	—	Phototransistor detector	1.59	1.55	1.51
273447CH	NTE3037	TO-18	NPN phototransistor detector	4.35	4.26	4.16
260380CH	NTE3040	DIP-6	NPN transistor output, 1.5V @ 10mA	1.75	1.68	1.61
260398CH	NTE3041	DIP-6	NPN transistor output, 1.15V @ 10mA	1.75	1.69	1.63
273455CH	NTE3042	DIP-6	NPN transistor	1.65	1.60	1.55
260401CH	NTE3044	DIP-6	NPN darl. trans. output, 1.15V @ 10mA	2.35	2.25	2.19
273463CH	NTE3045	DIP-6	Silicon darlington	2.45	2.39	2.32
260419CH	NTE3047	DIP-6	Triac driver output, 1.15V @ 10mA	2.45	2.04	1.95
273471CH	NTE3048	DIP-6	Triac driver output	3.19	2.89	2.39
273498CH	NTE3083	DIP-6	Optoisolator transistor	2.45	2.39	2.32
273501CH	NTE3084	DIP-6	NPN darlington transistor	2.39	2.33	2.26
273519CH	NTE3086	DIP-8	Dual transistor	3.75	3.66	3.57
273527CH	NTE3089	DIP-6	AC input, transistor	4.29	3.72	3.63
273535CH	NTE3090	DIP-6	Schmitt trigger	3.65	3.57	3.48
273543CH	NTE3098	DIP-4	NPN transistor output	2.09	2.02	1.78
273607CH	NTE3221	DIP-16	4-channel, NPN transistor output	3.35	3.17	2.98
273560CH	NTE3100	—	Opto interrupter	5.39	5.14	4.67

## IC Sockets

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
272727CH	NTE209	TO-3	Socket, trans, power, 2/pk.	\$2.09	\$2.04	\$1.99
273869CH	NTE409	DIP-14	14-pin DIP socket, 2/pk.	1.25	1.17	1.06
259178CH	NTE416	DIP-16	16-pin DIP socket	2.09	1.85	1.60
259186CH	NTE423	DIP-8	8-pin DIP socket	1.10	1.06	1.02
273885CH	NTE435P6	DIP-6	6-pin DIP socket, 2/pk.	1.39	1.36	1.32

## Insulator Kits

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
273877CH	NTE413	TO-3	Insulator kit, 2/pk.	\$1.39	\$1.29	\$1.20
259160CH	NTE422	TO-220	Insulator kit	1.01	.97	.93
273893CH	NTE439	D05/T048	Insulator kit, stud	.55	.54	.47

## NTE Hardware



259194CH



259282CH



259207CH



259215CH



259223CH



259231CH



259240CH



259258CH



259266CH



259274CH

Part No.	Cross Ref.	Description	1	10	25
259151CH	NTE303	1 gram tube heat sink compound (5/pk.)	\$1.65	\$1.55	\$1.48
259194CH	TP0001	TO-3 Thermo pad (5/pk.)	1.39	1.29	1.25
259282CH	TP0002	TO-66 Thermo pad (5/pk.)	1.15	1.12	1.09
259207CH	TP0003	DO-5 Thermo pad (5/pk.)	.82	.78	.75
259215CH	TP0004	TO-126 Thermo pad (5/pk.)	.69	.65	.63
259223CH	TP0005	TO-218 Thermo pad (5/pk.)	1.36	1.33	1.27
259231CH	TP0006	TO-220 Thermo pad (5/pk.)	1.01	.95	.91
259240CH	TP0007	DO-5 Thermo pad (5/pk.)	1.03	.98	.95
259258CH	TP0008	TO-3 Thermo pad (5/pk.)	1.15	1.12	1.09
259266CH	TP0009	TO-36 Thermo pad (5/pk.)	1.38	1.35	1.29
259274CH	TP0010	TO-3PML Thermo pad (5/pk.)	2.39	2.20	1.95



## Optoisolators

Quantity SAVE

NEW

Lower \$\$\$



DIP-4



DIP-6



DIP-8



DIP-16



TO-18

Part No.	Cross Ref.	Pkg.	Description	1	10	100
40985CH	4N25	DIP-6	Diode, NPN phototransistor	\$.22	\$.18	\$.17
41005CH	4N26	DIP-6	Diode, NPN phototransistor	.25	.22	.18
144240CH	4N27	DIP-6	Diode, NPN phototransistor	.24	.191	.185
41013CH	4N28	DIP-6	Diode, NPN phototransistor	.46	.372	.282
277421CH	4N29	DIP-6	General purpose photodarlington	.26	.21	.193
277456CH	4N30	DIP-6	General purpose photodarlington	.26	.216	.185
320565CH	4N31	DIP-6	General purpose photodarlington	.30	.273	.235
41021CH	4N32	DIP-6	Diode, NPN photodarlington	.26	.24	.21
41030CH	4N33	DIP-6	Diode, NPN photodarlington	.25	.24	.22
41056CH	4N35	DIP-6	Diode, NPN phototransistor	.24	.216	.213
277464CH	4N36	DIP-6	General purpose phototransistor	.20	.18	.17
320371CH	4N37	DIP-6	General purpose phototransistor	.27	.264	.227
277481CH	4N38	DIP-6	High-voltage phototransistor	.53	.46	.39
277499CH	4N39	DIP-6	Photo SCR optocoupler	.91	.82	.74
277501CH	4N40	DIP-6	Photo SCR optocoupler	.93	.84	.76
277510CH	6N135	DIP-8	High-speed transistor optocoupler	.54	.44	.36
42471CH	6N136	DIP-8	High speed transistor optocoupler	.65	.55	.49
113911CH	6N137	DIP-8	High-speed logic optocoupler	.71	.60	.496
42489CH	6N138	DIP-8	Low input curr., hi-gain split darlington	.67	.57	.462
113929CH	6N139	DIP-8	High-speed, high-gain darlington	.65	.55	.445
320389CH	CNY17-1	DIP-6	High BVceo phototransistor	.26	.225	.153
320397CH	CNY17-2	DIP-6	High BVceo phototransistor	.27	.191	.151
320400CH	CNY17-3	DIP-6	High BVceo phototransistor	.26	.191	.153
320418CH	CNY17-4	DIP-6	High BVceo phototransistor	.26	.191	.153
277561CH	H11A1	DIP-6	General purpose phototransistor	.27	.22	.20
18825CH	H11AA1	DIP-6	Dual infrared diode, NPN phototransistor	.51	.383	.291
277587CH	H11A2	DIP-6	General purpose phototransistor	.30	.21	.17
320434CH	H11AA2	DIP-6	AC input phototransistor optocoupler	.35	.286	.26
277595CH	H11A3	DIP-6	General purpose phototransistor	.34	.26	.21
320442CH	H11AA3	DIP-6	AC input phototransistor optocoupler	.34	.274	.249
281201CH	H11A4	DIP-6	General purpose phototransistor	.34	.30	.23
320451CH	H11AA4	DIP-6	AC input phototransistor optocoupler	.52	.50	.34
320426CH	H11A5	DIP-6	General purpose phototransistor	.30	.183	.168
320573CH	H11B1	DIP-6	Photodarlington optocoupler	.45	.344	.261
320581CH	H11B2	DIP-6	Photodarlington optocoupler	.45	.344	.261
320602CH	H11B3	DIP-6	Photodarlington optocoupler	.48	.432	.403
114016CH	H11C1	DIP-6	Photo SCR optocoupler	.79	.67	.50
18833CH	H11C3	DIP-6	Photo SCR optocoupler	.89	.76	.57
114008CH	H11C4	DIP-6	Photo SCR optocoupler	.83	.71	.53
277608CH	H11C6	DIP-6	Photo SCR optocoupler	.89	.75	.61
320493CH	H11D1	DIP-6	High voltage phototransistor	.62	.382	.361
320514CH	H11D2	DIP-6	High voltage phototransistor	.76	.58	.438
320522CH	H11D3	DIP-6	High voltage phototransistor	.76	.58	.44
113996CH	H11F1	DIP-6	Isolated FET	1.79	1.52	1.14
320186CH	H11F2	DIP-6	Photo FET optocouplers	1.75	1.54	1.18
320194CH	H11F3	DIP-6	Photo FET optocouplers	1.59	1.30	1.25
277712CH	H11G1	DIP-6	High-voltage photodarlington	.51	.47	.39
277721CH	H11G2	DIP-6	High-voltage photodarlington	.67	.55	.42
277747CH	H11G3	DIP-6	High-voltage photodarlington	.62	.52	.40
113988CH	H11L1	DIP-6	Schmitt trigger output photocoupler	1.09	.75	.61
320207CH	H11L2	DIP-6	Photo FET optocouplers	.71	.59	.48
320215CH	H11L3	DIP-6	Photo FET optocouplers	.74	.62	.50
320637CH	H11N1	DIP-6	High speed logic optocoupler	2.05	1.65	1.49
320645CH	H11N2	DIP-6	High speed logic optocoupler	1.89	1.55	1.39
138069CH	ISP817-3	DIP-4	Low power transistor output	.99	.84	.63
320477CH	MCT2	DIP-6	Phototransistor optocoupler	.42	.316	.24
320485CH	MCT4	TO-18	Hermetic phototransistor optocoupler	7.75	6.25	5.69
24918CH	MCT6	DIP-8	Dual channel NPN phototransistor	.56	.52	.47
26278CH	MOC3010	DIP-6	Bilateral triac driver	.56	.52	.345
95020CH	MOC3011	DIP-6	Bilateral triac driver	\$.077	.68	.51

## Optoisolators (Continued)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
277763CH	MOC3012	DIP-6	Random phase triac driver	\$.76	\$.58	\$.44
277780CH	MOC3020	DIP-6	Random phase triac driver	.54	.41	.31
95038CH	MOC3021	DIP-6	Bilateral triac driver	\$.53	.46	.39
277801CH	MOC3022	DIP-6	Random phase triac driver	.49	.45	.38
277819CH	MOC3023	DIP-6	Random phase triac driver	.51	.47	.39
26294CH	MOC3031	DIP-6	Zero crossing triac driver	\$.06	.72	.64
113953CH	MOC3032	DIP-6	Zero crossing triac driver	.61	.55	.52
277827CH	MOC3033	DIP-6	Zero crossing triac driver	.74	.66	.60
277835CH	MOC3041	DIP-6	Zero crossing triac driver	.69	.61	.52
113961CH	MOC3042	DIP-6	Zero crossing triac driver	.65	.58	.50
277843CH	MOC3043	DIP-6	Zero crossing triac driver	.59	.53	.46
277860CH	MOC3051	DIP-6	Random phase triac driver	.73	.66	.60
277894CH	MOC3052	DIP-6	Random phase triac driver	.87	.82	.79
277915CH	MOC3061	DIP-6	Zero crossing phototriac driver	.64	.59	.50
277931CH	MOC3062	DIP-6	Zero crossing phototriac driver	.80	.68	.55
133874CH	MOC3063	DIP-6	Zero crossing triac driver	1.25	1.06	.80
320629CH	MOC3082	DIP-6	Zero crossing optoisolator	1.20	1.01	.88
320611CH	MOC3083	DIP-6	Zero crossing optoisolator	.98	.79	.73
320653CH	PS2501-1	DIP-4	Single transistor photocoupler	.20	.19	.185
320661CH	PS2501-2	DIP-8	Single transistor photocoupler	.51	.459	.418
160338CH	PS2501-4	DIP-16	Photo darlington & transistor/detector	1.09	1.02	.88
320688CH	PS2502-1	DIP-4	Darlington photocoupler	.41	.39	.353
320696CH	PS2502-2	DIP-8	Darlington photocoupler	1.18	.96	.87
160362CH	PS2502-4	DIP-16	Photo darlington & transistor/detector	1.75	1.61	1.39
320709CH	PS2505-1	DIP-4	High isolation voltage photocoupler	.33	.32	.302
320717CH	PS2505-2	DIP-8	High isolation voltage photocoupler	.79	.76	.69
320725CH	PS2505-4	DIP-16	High isolation voltage photocoupler	1.29	1.18	1.06
320750CH	PS2506-1	DIP-4	High isolation voltage photocoupler	.54	.51	.462
320768CH	PS2506-2	DIP-8	High isolation voltage photocoupler	1.09	1.01	.92
320776CH	PS2506-4	DIP-16	High isolation voltage photocoupler	2.15	1.83	1.67
320784CH	PS2532-1	DIP-4	High collector to high emitter volt. photocoupler	.54	.486	.437
320792CH	PS2532-2	DIP-8	High collector to high emitter volt. photocoupler	1.19	1.14	1.04
320805CH	PS2532-4	DIP-16	High collector to high emitter volt. photocoupler	2.25	1.95	1.75
320813CH	PS2561-1	DIP-4	High isolation voltage photocoupler	.23	.22	.21
320821CH	PS2561-2	DIP-8	High isolation voltage photocoupler	.75	.71	.68
320830CH	PS2561-4	DIP-16	High isolation voltage photocoupler	2.28	2.05	1.85

## Slotted Optical Switches

NEW

4-pin w/ tab



4-pin w/o tab



Part No.	Cross Ref.	Pkg.	Description	1	10	100
114091CH	H21A1	4-pin w/ tab	Single channel slotted interrupter	\$.69	\$.64	\$.554
278011CH	H21A2	4-pin w/ tab	Phototransistor optical interrupter	.99	.71	.58
320901CH	H21A3	4-pin w/ tab	Phototransistor optical switch	.70	.61	.47
320928CH	H21A6	4-pin w/ tab	Phototransistor optical switch	.79	.64	.58
278070CH	H21B1	4-pin w/ tab	Photodarlington optical interrupter	.87	.78	.71
278088CH	H21B2	4-pin w/ tab	Photodarlington optical interrupter	1.09	.79	.74
278096CH	H21B3	4-pin w/ tab	Photodarlington optical interrupter	1.35	1.19	1.09
321007CH	H21B6	4-pin w/ tab	Photodarlington optical switch	.92	.75	.68
320848CH	H21LOB	5-pin w/ tab	OPTOLOGIC® interrupter slotted switch	1.09	.91	.81
320856CH	H21LTB	5-pin w/ tab	OPTOLOGIC® interrupter slotted switch	1.09	.91	.76
320864CH	H21LTI	5-pin w/ tab	OPTOLOGIC® interrupter slotted switch	1.09	.91	.81
114104CH	H22A1	4-pin w/o tab	Slotted optical switch	.61	.51	.462
278029CH	H22A2	4-pin w/o tab	Slotted optical switch	1.15	1.05	.93
278045CH	H22A3	4-pin w/o tab	Slotted optical switch	.74	.623	.504
278109CH	H22B1	4-pin w/o tab	Photodarlington optical interrupter	.68	.61	.56
278117CH	H22B2	4-pin w/o tab	Photodarlington optical interrupter	.87	.71	.64
320872CH	H22LOB	5-pin w/o tab	OPTOLOGIC® interrupter slotted switch	1.09	.85	.80
320881CH	H22LOI	5-pin w/o tab	OPTOLOGIC® slotted switch	1.09	.92	.80
196058CH	ITR-8105	4-pin w/o tab	Slotted optical switch	.48	.42	.38
321120CH	MOC70P1	4-pin w/o tab	Phototransistor optical switch	.90	.73	.66
321138CH	QVE11233	4-pin w/o tab	Slotted optical switch	.64	.52	.47

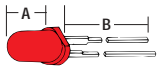


Fig. 1

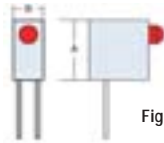


Fig. 2

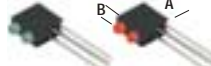


Fig. 3

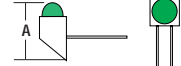


Fig. 4



Fig. 5

## Standard-Output LEDs

Call for OEM PRICING – we carry major manufacturers.

**Quantity SAVE**

**NEW**

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A*	B*					1	10	100	1000
333219CH	LY12340	1	Yellow	Yellow diffused	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	6.5 @ 10	585	*	\$.08	\$.063	\$.06
334211CH	LA16BY	2	Yellow	Yellow diffused PCB mount indicators	T1	.119/3	0.29	0.18	0.10	1.7 @ 20	12 @ 10	585	.30	.284	.146	.102
34657CH	LY2040*	1	Yellow	Yellow diffused (XC209Y)	T1	.119/3	0.16	0.68	0.08	2.3 @ 20	15 @ 10	585	*	.13	.11	.075
333884CH	UT6331-41	1	Yellow	Yellow diffused	T1	.119/3	0.17	0.98	0.10	2.1 @ 20	24 @ 10	589	*	.088	.069	.049
333294CH	LUY2643-1	1	Yellow	Water clear	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	350 @ 20	595	*	.16	.152	.144
333307CH	LUY2643-1	1	Yellow	Water clear	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	900 @ 20	595	.26	.174	.128	.109
206480CH	LVY2041	1	Yellow	Yellow transparent	T1	.119/3	0.17	0.69	0.08	2.3 @ 20	450 @ 20	595	*	.14	.12	.10
235424CH	LA45B/2I	3	Red	Red diffused (dual)	T1	.119/3	0.40	0.18	0.10	1.7 @ 20	12 @ 10	630	<del>\$.29</del>	.99	.89	.71
136282CH	LA44B/2I	3	Red	Red diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	12 @ 10	630	.49	.45	.39	.29
333868CH	UT6341R-41	1	Hi-eff Red	Orange diffused	T1	.119/3	0.17	1.00	0.10	2.1 @ 20	35 @ 20	630	*	.098	.06	.045
333366CH	LHRF2643-1	1	Red	Water clear	T1	.119/3	0.13	0.98	0.10	1.5 @ 20	300 @ 20	630	*	.174	.152	.144
333374CH	LURF2643-1	1	Red	Water clear	T1	.119/3	0.13	0.98	0.10	1.5 @ 20	550 @ 20	630	*	.158	.153	.146
333198CH	LE12340	1	Hi-eff Red	Orange diffused	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	6.5 @ 10	635	*	.079	.064	.057
333876CH	UT6314R-41	1	Hi-eff Red	Red diffused	T1	.119/3	0.17	1.00	0.10	2.1 @ 20	12 @ 20	635	.27	.213	.102	.066
333171CH	HLMP-K155-JV	1	Red	Red clear	T1	.119/3	0.19	1.04	0.10	1.6 @ 1	3.0 @ 1	660	*	.079	.078	.057
333850CH	UT6371-41-M1	1	Red	Red diffused	T1	.119/3	0.17	0.98	0.10	1.7 @ 20	63 @ 20	660	*	.098	.064	.061
333251CH	LSR2643-1	1	Red	Water clear	T1	.119/3	0.13	0.98	0.10	1.5 @ 20	120 @ 20	660	.20	.196	.128	.109
333260CH	LHR2643-1	1	Red	Water clear	T1	.119/3	0.13	0.98	0.10	1.5 @ 20	300 @ 20	660	.28	.19	.152	.144
206498CH	LHR2041	1	Red	Red transparent	T1	.119/3	0.17	0.69	0.08	2.0 @ 20	350 @ 20	660	*	.15	.12	.09
333278CH	LUR2643-1	1	Red	Water Clear	T1	.119/3	0.13	0.98	0.10	1.5 @ 20	550 @ 20	660	*	.16	.154	.147
334203CH	LA16B/H	2	Red	Red diffused PCB mount indicators	T1	.119/3	0.29	0.18	0.10	1.7 @ 20	4.2 @ 10	697	.30	.284	.146	.102
94529CH	LH2040*	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	0.07	2.3 @ 20	4.5 @ 10	697	*	.19	.15	.12
114673CH	LH2043*	1	Red	Water clear (BR209)	T1	.119/3	0.14	0.98	0.07	2.3 @ 20	12 @ 10	697	*	.19	.15	.12
94553CH	LHG2062	1	Red/Green	White diffused bi-color/bi-state <sup>1</sup>	T1	.119/3	0.18	1.06	0.08	2.3 @ 20	3 & 15 @ 10	697/565	.29	.25	.21	.16
333340CH	LHE2643	1	Orange	Water clear	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	700 @ 20	620	*	.158	.144	.137
333358CH	LUE2643	1	Orange	Water clear	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	900 @ 20	620	.21	.19	.154	.147
333391CH	UT6341-41	1	Orange	Orange diffused	T1	.119/3	0.17	0.94	0.10	2.1 @ 20	35 @ 20	630	.22	.182	.084	.068
333833CH	LI12340	1	Orange	Red diffused	T1	.119/3	0.16	0.98	0.10	1.7 @ 20	6.5 @ 10	635	*	.098	.076	.054
202472CH	MVL-301HR	1	Orange Red	Red diffused	T1	.119/3	0.14	1.12	0.10	2.0 @ 20	9.0 @ 10	640	*	.19	.15	.11
34606CH	LSG2040*	1	Green	Green diffused (XC209G)	T1	.119/3	0.13	1.05	0.08	2.2 @ 20	15 @ 10	560	*	.15	.11	.08
333201CH	LG12340	1	Green	Green diffused	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	9.6 @ 10	565	*	.08	.063	.06
211087CH	LG2040	1	Green	Green diffused	T1	.119/3	0.13	1.10	0.10	2.1 @ 20	12.6 @ 10	565	*	.11	.094	.071
334220CH	LA16B/G	2	Green	Green diffused PCB mount indicators	T1	.119/3	0.29	0.18	0.10	1.7 @ 20	15 @ 10	565	.30	.284	.146	.102
235416CH	LA45B/2G	3	Green	Green diffused (dual)	T1	.119/3	0.40	0.18	0.10	1.7 @ 20	15 @ 10	565	<del>\$.29</del>	.99	.89	.71
136274CH	LA44B/2G	3	Green	Green diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	15 @ 10	565	.49	.45	.39	.29
333315CH	MV7441-JV	1	Green	Water clear	T1	.119/3	0.13	0.98	0.10	1.7 @ 20	120 @ 20	565	*	.17	.145	.124
175679CH	LVG2041	1	Green	Green transparent	T1	.119/3	0.17	0.69	0.08	2.2 @ 20	129 @ 20	565	*	.15	.11	.08
114681CH	LVG2043*	1	Green	Water clear (BG209)	T1	.119/3	0.14	0.98	0.07	2.2 @ 20	129 @ 20	565	*	.09	.07	.055
137411CH	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	0.10	4.8 @ 20	10 @ 20	430	2.49	2.25	1.95	1.69
333382CH	UT63B1-41-M1A2	1	Blue	Blue diffused	T1	.119/3	0.17	0.98	0.10	3.8 @ 20	50 @ 20	466	.75	.714	.68	.66
34825CH	LY3330*	1	Yellow	Yellow diffused (XC556Y)	T1 3/4	.197/5	0.30	0.82	0.07	2.3 @ 20	12 @ 10	585	*	.19	.15	.12
104264CH	LA93B/Y-1	4	Yellow	Yellow diffused (XC410Y)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	25 @ 10	585	.35	.316	.256	.219
334406CH	LY9033	5	Yellow	Water clear	T1 3/4	.197/5	0.05	0.27	0.03	1.7 @ 20	30 @ 10	585	*	.176	.104	.099
175695CH	LVY3333*	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.07	0.08	2.1 @ 20	60 @ 10	585	*	.19	.15	.12
334107CH	UT1831-81-S	1	Yellow	Yellow diffused	T1 3/4	.197/5	0.34	0.98	0.10	2.1 @ 20	16.4 @ 20	589	*	.098	.064	.061
333964CH	UT1834-81-S	1	Yellow	Yellow Clear	T1 3/4	.197/5	0.34	0.98	0.10	2.1 @ 20	55.8 @ 20	589	*	.098	.069	.049
334385CH	UT1833-81-M181	1	Yellow	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	2.1 @ 20	450 @ 20	590	*	.098	.064	.061
333622CH	LHY3330/HO	1	Yellow	Yellow diffused	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	350 @ 20	595	.31	.30	.192	.154
334377CH	UT1841R-81	1	Hi-eff Red	Red diffused	T1 3/4	.197/5	0.34	0.98	0.10	2.1 @ 20	23.1 @ 20	630	*	.098	.064	.061
334060CH	UT1841R-81-S	1	Hi-eff Red	Red diffused	T1 3/4	.197/5	0.34	0.94	0.10	2.1 @ 20	23.1 @ 20	630	.27	.213	.102	.066
333921CH	UT1844R-81-S	1	Hi-eff Red	Red clear	T1 3/4	.197/5	0.34	0.98	0.10	2.1 @ 20	78.8 @ 20	630	*	.098	.069	.049
334271CH	LA93B/I	4	Hi-eff Red	Red diffused PCB mount indicators	T1 3/4	.197/5	0.36	0.15	0.10	1.7 @ 20	25 @ 10	635	.30	.284	.146	.115
34711CH	LEG3362*	1	Red/Green	White diffused bi-color/bi-state <sup>1</sup>	T1 3/4	.197/5	0.30	1.01	0.09	2.3 @ 20	7.5 & 8 @ 20	635/565	.33	.28	.22	.19
333972CH	UT1871-81-M1	1	Red	Red diffused	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	75 @ 20	660	*	.098	.064	.061
334115CH	UT1872-81-M1	1	Red	White diffused	T1 3/4	.197/5	0.34	1.00	0.10	1.7 @ 20	75 @ 20	660	.25	.225	.122	.08
333454CH	LSR3330/HO/A	1	Red	Red diffused	T1 3/4	.197/5	0.34	1.00	0.10	1.5 @ 20	140 @ 20	660	*	.14	.128	.113
333462CH	LHR3330/HO/A	1	Red	Red diffused	T1 3/4	.197/5	0.34	0.98	0.10	1.5 @ 20	220 @ 20	660	.23	.219	.146	.104

\* 10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 61

<sup>1</sup> Reverse polarity to change color

More LEDs listed on pages 56 & 57

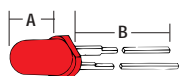


Fig. 1

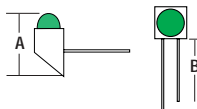


Fig. 4



Fig. 6

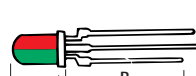


Fig. 7

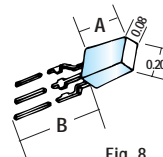


Fig. 8



Fig. 9

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\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A*	B*					1	10	100	1000
334035CH	UT1871-81-UR-P18	1	Red	Red diffused	T1 3/4	.197/5	0.34	0.94	0.10	1.9 @ 20	250 @ 20	660	*	\$.098	\$.076	\$.054
333420CH	LSR3331	1	Red	Red transparent	T1 3/4	.197/5	0.34	0.98	0.10	1.5 @ 20	550 @ 20	660	*	.118	.08	.072
333489CH	LUR3330/HO/A	1	Red	Red diffused	T1 3/4	.197/5	0.34	0.98	0.10	1.5 @ 20	380 @ 20	660	.20	.174	.146	.104
333497CH	LSR13233	1	Red	Water clear	T1 3/4	.197/5	0.35	0.98	0.10	1.5 @ 20	720 @ 20	660	*	.176	.098	.085
94511CH	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.08	2.3 @ 20	3 @ 10	697	*	.17	.13	.10
333999CH	LH3310	1	Red	Red diffused	T1 3/4	.197/5	0.35	1.00	0.10	1.7 @ 20	4.5 @ 10	697	.27	.213	.102	.066
104248CH	LA93B/H-1*	4	Red	Red diffused (XC410R)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	6.5 @ 10	697	*	.23	.19	.17
34745CH	LH3333	1	Red	Water clear (XC554R)	T1 3/4	.197/5	0.30	1.00	0.08	2.3 @ 20	7.5 @ 10	697	*	.15	.11	.065
334174CH	LHI3360	6	Red/Orange	Red diffused bi-color/solid state	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	2.0 & 3.0 @ 10	697/635	.25	.213	.128	.092
334182CH	LGH3362	6	Red/Green	White diffused bi-color/solid state	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	2.0 & 8.0 @ 10	697/565	.23	.222	.146	.104
34673CH	LHG3392*	7	Red/Green	White diff. bi-color/tri-state	T1 3/4	.197/5	0.30	1.02	0.03	2.3 @ 20	3 & 12 @ 10	697/565	.24	.22	.20	.14
334051CH	UT1841-81-S	1	Orange	Orange diffused	T1 3/4	.197/5	0.34	0.98	0.10	2.1 @ 20	23.1 @ 20	630	.22	.176	.102	.066
333243CH	UT2462-24-D51	7	Orange/Green	White diff bi-color/tri-state	T1 3/4	.197/5	0.30	0.80	0.10	2.1 @ 20	11.7 @ 20	630/572	.23	.219	.119	.104
107393CH	LE3330	1	Orange Red	Orange diffused (XC556A)	T1 3/4	.197/5	0.30	1.02	0.08	2.3 @ 20	12 @ 10	635	*	.11	.07	.06
333235CH	LI13530	1	Orange	Red diffused	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	15 @ 10	635	*	.12	.103	.065
334001CH	LI3330	1	Orange	Orange diffused	T1 3/4	.197/5	0.35	1.00	0.10	1.7 @ 20	24 @ 10	635	*	.098	.069	.049
333913CH	LE3331	1	Orange	Orange transparent	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	75 @ 10	635	*	.118	.069	.049
34761CH	LG3330*	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.09	2.3 @ 20	12 @ 10	565	*	.15	.14	.10
334086CH	LG13740	1	Green	Green diffused	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	20 @ 20	565	*	.098	.064	.061
333227CH	LG13530	1	Hi-eff Green	Green diffused	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	25 @ 10	565	*	.12	.102	.065
104256CH	LA93B/G-1*	4	Green	Green diffused (XC410G)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	30 @ 10	565	*	.23	.19	.17
11359CH	LG3333*	1	Green	Water clear (BG5704)	T1 3/4	.197/5	0.30	1.04	0.07	2.3 @ 20	100 @ 20	565	*	.22	.20	.16
333956CH	LG3331	1	Green	Green transparent	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	150 @ 10	565	*	.098	.064	.061
333534CH	LVG3333/S46	1	Green	Water Clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	220 @ 20	565	.23	.222	.147	.104
333542CH	LVG3833	1	Green	Water Clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	550 @ 20	565	*	.16	.149	.138
334393CH	UT1821-81-S	1	Green	Green diffused	T1 3/4	.197/5	0.35	1.00	0.10	2.1 @ 20	20 @ 20	572	*	.098	.064	.061
333948CH	UT1824-81-S	1	Green	Water Clear	T1 3/4	.197/5	0.34	0.98	0.10	2.1 @ 20	68.1 @ 20	572	*	.108	.069	.049
138691CH	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	0.10	4.8 @ 20	10 @ 20	430	2.15	2.04	1.95	1.79
334457CH	LSBI2640	1	Blue	Blue diffused	T1 3/4	.197/5	0.17	0.98	0.10	3.8 @ 20	50 @ 20	430	.75	.73	.69	.66
137613CH	LSBI3333	1	Blue	Water clear	T1 3/4	.197/5	0.34	0.98	0.08	3.8 @ 20	160 @ 20	430	2.29	2.04	1.63	1.22
134332CH	LT18B3-81UR	1	Blue	Water clear (383UBC)	T1 3/4	.197/5	0.30	0.93	0.10	3.8 @ 20	350 @ 20	428	2.65	2.45	2.25	1.95
119634CH	LHR3930	1	Red	Red diffused Jumbo (LT9952L)	T2 1/2	.315/8	0.44	0.84	0.07	2.0 @ 20	100 @ 20	660	.23	.20	.15	.13
137621CH	LVG3930	1	Green	Green diffused Jumbo	T2 1/2	.315/8	0.43	1.04	0.07	2.3 @ 20	40 @ 20	565	.23	.211	.192	.122
98992CH	LY3630	1	Yellow	Yellow diff. XJumbo (XC10Y)	T3 1/4	.394/10	0.54	1.04	0.08	2.3 @ 20	15 @ 20	585	.29	.26	.21	.16
354790CH	MCDL-833YD/H1090	1	Yellow	Yellow diffused	T3 1/4	.394/10	0.55	1.00	0.10	2.1 @ 30	25 @ 20	590	.66	.58	.50	.47
138683CH	LHR3630	1	Red	Red diffused XJumbo (XC10R)	T3 1/4	.394/10	0.40	1.04	0.10	2.0 @ 20	100 @ 20	660	.29	.26	.22	.18
354802CH	MCDL-833SRD/H1090	1	Super Red	Red diffused	T3 1/4	.394/10	0.55	1.00	0.10	1.8 @ 20	200 @ 20	660	.76	.67	.52	.47
354781CH	MCDL-833ED/H1090	1	Hi-eff Red	Red diffused	T3 1/4	.394/10	0.55	1.00	0.10	2.0 @ 30	25 @ 20	635	.66	.58	.50	.47
354773CH	MCDL-833DG/H1090	1	Green	Green diffused	T3 1/4	.394/10	0.55	1.00	0.10	2.2 @ 30	20 @ 20	570	.72	.59	.576	.469
98984CH	LVG3630	1	Green	Green diffused XJumbo (XC10G)	T3 1/4	.394/10	0.40	1.07	0.08	2.3 @ 20	40 @ 20	565	.27	.26	.19	.13
94561CH	LFG3360	1	Green	Green diff./blinking (XC5408)†	T1 3/4	.197/5	0.30	1.05	0.08	3-12V	17	565	.59	.53	.48	.43
351038CH	MCDL-517GD-F	1	Green	Green diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	2.0 @ 30	15 @ 20	565	.51	.419	.289	.278
351046CH	MCDL-517YD-F	1	Yellow	Yellow diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	2.1 @ 30	20 @ 20	585	.51	.419	.289	.278
351054CH	MCDL-517AD-F	1	Amber	Amber diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	2.1 @ 30	20 @ 20	585	.51	.419	.289	.278
351011CH	MCDL-517ED-F	1	Hi-eff Red	Red diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	1.7 @ 40	20 @ 20	635	.51	.419	.354	.278
351020CH	MCDL-517ED-EF	1	Orange	Orange diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	2.1 @ 15	20 @ 20	635	.51	.419	.354	.278
351062CH	MCDL-517SRD-F	1	Super Red	Red diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	1.8 @ 20	200 @ 20	660	.57	.469	.323	.31
351071CH	MCDL-517LRD-F	1	Super Red	Red diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	1.8 @ 20	300 @ 20	660	.57	.469	.323	.31
351097CH	MCDL-517URC-U14-F	1	Super Red	Water clear blinking	T1 3/4	.197/5	0.34	1.00	0.10	1.8 @ 20	300 @ 20	660	.57	.469	.323	.31
34690CH	LFH3360*	1	Red	Red diffused/blinking (XC5410)†	T1 3/4	.197/5	0.30	0.94	0.07	3-12V	2.8	697	.49	.45	.39	.35
138860CH	LFH3363	1	Red	Water clear/blinking†	T1 3/4	.197/5	0.35	1.06	0.10	3-12V	9	697	.49	.44	.35	.26
351003CH	MCDL-517HD-F	1	Bright Red	Red diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	2.1 @ 15	5.0 @ 20	700	.52	.47	.413	.296
104889CH	LEG5292††	8	Red/Green	White diff. bi-color rectangular	2 x 5	—	0.27	1.02	0.08	2.3 @ 20	6/6 @ 10	695/565	*	.21	.179	.134
333796CH	UT7231-81	9	Yellow	Yellow diffused rectangular	2.3x7.1	—	0.29	0.94	0.10	2.1 @ 20	5.0 @ 20	585	.29	.241	.119	.085
333761CH	UT7241-81	9	Hi-eff Red	Orange diffused rectangular	2.3x7.1	—	0.29	0.94	0.10	2.1 @ 20	7.2 @ 20	635	*	.127	.08	.074

\*10 pcs. in LEDs &amp; LED Mounting Hardware cabinet kit, pg 61

† Voltage shown is operating voltage range; no current limiting resistor required.

†† For mounting hardware see pg 61



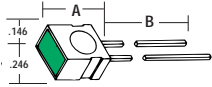


Fig. 10



Fig. 11

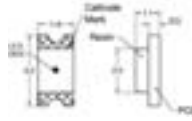


Fig. 12



Fig. 13



Fig. 14



Fig. 15

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**Quantity SAVE**

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A*	B*					1	10	100	1000
333770CH	UT7241R-81	9	Hi-eff Red	Red diffused rectangular	2.3 x 7.1	—	0.29	0.94	0.10	2.1 @ 20	7.2 @ 20	635	*	\$.12	\$.102	\$.074
333788CH	UT7222-81	9	Green	White diffused rectangular	2.3 x 7.1	—	0.29	0.94	0.10	2.1 @ 20	6.1 @ 20	567	.29	.241	.119	.085
333702CH	UT7321-81	10	Green	Green diffused rectangular	3.2 x 6.2	—	0.28	0.80	0.10	2.1 @ 20	8.8 @ 20	567	.23	.207	.146	.105
333711CH	UT7331-81	10	Yellow	Yellow diffused rectangular	3.2 x 6.2	—	0.28	0.80	0.10	2.1 @ 20	7.2 @ 20	585	.25	.238	.158	.112
333690CH	UT7341R-81	10	Orange	Red diffused rectangular	3.2 x 6.2	—	0.28	0.80	0.10	2.1 @ 20	10.1 @ 20	635	.23	.207	.146	.105
94545CH	LG25030††	10	Green	Green diff. rect. (XC57124G)	3.5 x 6	—	0.26	1.06	0.08	2.3 @ 20	5.2 @ 20	565	*	.19	.16	.15
333745CH	UT5221-81	9	Green	Green diffused rectangular	5.2 x 7.8	—	0.30	1.03	0.10	2.1 @ 20	7.1 @ 20	572	*	.088	.056	.053
333753CH	UT5231-81	9	Yellow	Yellow diffused rectangular	5.2 x 7.8	—	0.30	1.03	0.10	2.1 @ 20	5.9 @ 20	589	*	.108	.076	.054
333737CH	UT521R-81	9	Hi-eff Red	Red diffused rectangular	5.2 x 7.8	—	0.30	1.03	0.10	2.1 @ 20	8.3 @ 20	630	*	.098	.076	.054
334650CH	UB3541R-11 NRAK	11	Orange	0.35" lightbar	8.9 x 10.1	—	—	—	0.10	2.1 @ 20	7.8 @ 10	635	.80	.70	.48	.408
334668CH	UB3531-11 NYAK	11	Yellow	0.35" lightbar	8.9 x 10.1	—	—	—	0.10	2.1 @ 20	5.5 @ 10	585	.83	.70	.48	.401
334676CH	UB3521-11 NGAK	11	Green	0.35" lightbar	8.9 x 10.1	—	—	—	0.10	2.1 @ 20	6.8 @ 10	567	.83	.70	.48	.396
334326CH	LG-150Y-DT	12	Yellow	White diffused SMD 1206	SMD1206	—	0.06	0.13	—	1.7 @ 20	5 @ 20	585	*	.13	.105	.085
334297CH	LG-150Y-CT	12	Yellow	Water clear SMD 1206	SMD1206	—	0.07	0.13	—	1.7 @ 20	6.0 @ 20	588	*	.19	.147	.084
334318CH	LG-150E-DT	12	Hi-eff Red	White diffused SMD 1206	SMD1206	—	0.06	0.13	—	1.7 @ 20	8 @ 20	635	*	.19	.147	.085
334289CH	LG150E-CT	12	Orange	Water clear SMD 1206	SMD1206	—	0.07	0.13	—	1.7 @ 20	6.0 @ 20	635	*	.147	.104	.084
334334CH	LG-150G-DT	12	Green	White diffused SMD 1206	SMD1206	—	0.06	0.13	—	1.7 @ 20	10 @ 20	573	*	.118	.095	.078
334300CH	LG-150G-CT	12	Green	Water clear SMD 1206	SMD1206	—	0.07	0.13	—	1.7 @ 20	12.5 @ 20	573	*	.158	.112	.085
334781CH	LG-150DBK-CT	12	Blue	Water clear SMD 1206	SMD1206	—	0.06	0.13	—	3.5 @ 20	40 @ 20	470	2.29	2.20	1.72	1.31
334351CH	LY9553/TR1	13	Yellow	Water clear surface mount	PLCC-2	—	0.12	1.30	—	1.7 @ 20	7.0 @ 10	585	*	.15	.114	.102
334369CH	LG9533/TR1	13	Green	Water clear surface mount	PLCC-2	—	0.12	1.30	—	1.7 @ 20	9.0 @ 10	565	*	.15	.114	.103

†† For mounting hardware see pg 61

<b>Dialight</b>		<b>MCD</b>		<b>Other Manufacturers — Limited Great Deals</b>								<b>LITEON</b>				
202489CH	MVL-301Y	1	Yellow	Yellow diffused	T1	.119/3	0.14	1.12	0.10	2.1 @ 20	9.0 @ 10	585	*	\$.171	\$.145	\$.109
211086CH	LTL-4231N-022	1	Green	Green diffused	T1	.119/3	0.13	1.10	0.10	2.1 @ 20	12.6 @ 10	565	*	.099	.084	.063
202471CH	MVL-301HR	1	Orange Red	Red diffused	T1	.119/3	0.14	1.12	0.10	2.0 @ 20	9.0 @ 10	640	*	.171	.145	.109
135597CH	LTL307E*	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	1.00	0.07	2.0 @ 20	19 @ 10	635	*	.115	.081	.073
26745CH	MCDL-170EC	14	Red	Water clear	T 3/4	.083/2.1	0.06	0.25	0.11	2.1 @ 20	7 @ 10	635	.23	.207	.189	.18
320282CH	566-0306	15	Yellow	Yellow diffused rect.	2 x 5mm	—	0.28	0.11	0.10	2.1 @ 20	3.5 @ 20	583	.89	.76	.46	.40
320274CH	566-0206	15	Green	Green diffused rect.	2 x 5mm	—	0.28	0.11	0.10	2.2 @ 20	4 @ 20	565	1.15	.94	.53	.515
320291CH	566-0406	15	Red	Red diffused rect.	2 x 5mm	—	0.28	0.11	0.10	2 @ 20	7.4 @ 20	635	.89	.76	.46	.404

\* 10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 61

**A Jameco EXCLUSIVE**

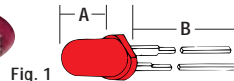


Fig. 1



Fig. 2



Fig. 3

\* Prepackaged: order in increments of 10, 100 or 1000

**JAMECO** ValuePro

## Medium-Output LEDs

Part No.	Mfr. Cross Reference No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A*	B*					1	10	100	1000
206501CH	LVY3331	1	Yellow	Yellow transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.2 @ 20	700 @ 20	595	*	\$.19	\$.15	\$.12
206519CH	LHR3331	1	Red	Red transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.0 @ 20	660 @ 20	550	*	.19	.15	.12
334490CH	LHRF3333/S46/A	1	Red	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.5 @ 20	700 @ 20	630	.37	.323	.157	.109
351089CH	MCDL-517URD-F	1	Super Red	Red diffused blinking	T1 3/4	.197/5	0.34	1.00	0.10	1.8 @ 20	500 @ 20	660	.57	.469	.323	.31
333438CH	UT1873-81-UR	1	Red	Water clear	T1 3/4	.197/5	0.34	0.94	0.10	1.9 @ 20	1000 @ 20	660	*	.19	.119	.085
333500CH	LHR3833/A	1	Red	Water clear	T1 3/4	.197/5	0.35	0.98	0.10	1.5 @ 20	1500 @ 20	660	*	.19	.119	.085
333631CH	LUE13733	1	Orange	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	700 @ 20	620	*	.13	.12	.114
153154CH	LVG3333	1	Green	Water clear (HLMF-8509)	T1 3/4	.197/5	0.36	0.90	0.10	2.3 @ 20	500 @ 20	565	*	.14	.10	.08
333551CH	LVG13233	1	Green	Water clear	T1 3/4	.197/5	0.35	0.98	0.10	1.7 @ 20	600 @ 20	565	.23	.219	.146	.138
334465CH	LDBK3331/HO	1	Blue	Blue transparent	T1 3/4	.197/5	0.34	0.98	0.10	3.5 @ 20	900 @ 20	470	1.79	1.46	1.29	1.07
334748CH	UT63B3-41-UR33	1	Blue	Water clear	T1	.119/3	0.17	0.94	0.10	3.2 @ 20	900 @ 20	470	1.26	1.21	.92	.66
334756CH	UT5KW3-AA-UAE3-TO1	2	White	Water clear	SMD1206	—	.08	0.14	—	3.2 @ 20	550 @ 20	—	2.35	2.19	1.99	1.62

**BrightView**

## Other Manufacturers — Limited Great Deals

210825CH	BUV-5MIQN1	1	Orange Red	Red diffused	T1 3/4	.197/5	0.30	1.07	0.08	2.1 @ 20	600 @ 20	615	\$.44	\$.40	\$.32	\$.24
176532CH	MV50G	3	Green	Water clear	T 3/4	.069/1.7	0.06	0.40	0.08	2.1 @ 20	300 @ 20	568	*	.108	.097	.088

## High-Output LEDs

• Typical DC forward current 20mA

See page 61 for LED Mounting Hardware

Fig. 1

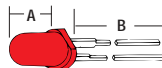
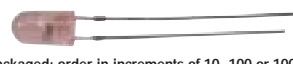


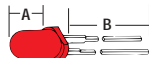
Fig. 2



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Reference No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical VF @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A"	B"					1	10	100	1000
334764CH	CMD204UWC-JV	1	White	Water clear	T1	.119/3	0.20	1.00	0.10	3.7 @ 20	1000 @ 20	475	\$2.35	\$2.29	\$1.71	\$1.54
217525CH	MCDPW-3004C	1	White	Water clear	T1	.119/3	0.18	1.00	0.10	3.8 @ 20	3000 @ 20	—	2.99	2.85	2.69	2.55
333577CH	LUY53333	1	Yellow	Water Clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	2700 @ 20	587	.30	.285	.177	.124
197675CH	BVT-5E1TT4E	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.08	0.08	2.3 @ 20	2800 @ 20	592	.45	.36	.29	.27
333614CH	LUY3833H	1	Yellow	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	5000 @ 20	590	.31	.261	.154	.147
333569CH	LUY3333/A	1	Yellow	Water clear	T1 3/4	.197/5	0.35	1.00	0.10	1.7 @ 20	1500 @ 20	595	.30	.285	.177	.124
333593CH	LHY3833	1	Yellow	Water clear	T1 3/4	.197/5	0.35	1.00	0.10	1.7 @ 20	1500 @ 20	595	.30	.285	.265	.178
333606CH	MV8315-JV	1	Yellow	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	2700 @ 20	595	.31	.28	.21	.181
197616CH	BUV-5E10H4E	1	Red	Water clear	T1 3/4	.197/5	0.30	1.05	0.08	1.8 @ 20	2180 @ 20	630	.39	.35	.29	.25
334422CH	UT9C13-86-UDC2	1	Red	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.9 @ 20	2700 @ 20	630	.20	.196	.157	.109
334481CH	UT1813-86-UC9T-P27	1	Ultra Red	Water clear	T1 3/4	.197/5	0.34	0.94	0.10	2.2 @ 20	3500 @ 20	642	.20	.196	.157	.146
152864CH	BUV-501RD4	2	Red Super Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	1000 @ 20	660	.29	.24	.19	.15
333446CH	UT1873-81-UR-P22	1	Red	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.9 @ 20	1200 @ 20	660	*	.19	.119	.098
333518CH	LUR13233	1	Red	Water clear	T1 3/4	.197/5	0.35	0.98	0.10	1.5 @ 20	2400 @ 20	660	*	.19	.147	.097
333526CH	LUR3833	1	Red	Water clear	T1 3/4	.197/5	0.35	0.98	0.10	1.5 @ 20	2700 @ 20	660	*	.16	.119	.107
333665CH	LEF3833	1	Orange	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	1700 @ 20	620	.30	.29	.20	.178
333649CH	LHE3333	1	Orange	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	1800 @ 20	620	.30	.285	.177	.124
333657CH	LUE3333	1	Orange	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	3400 @ 20	620	.29	.237	.208	.178
333673CH	LUE3833	1	Orange	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	1.7 @ 20	5000 @ 20	620	.30	.27	.177	.147
131895CH	TL5H180P	1	Orange	Water clear	T1 3/4	.197/5	0.39	0.80	0.10	2.1 @ 20	10000 @ 20	623	2.49	2.19	1.95	1.79
197683CH	BVT-5E1QT4ER	1	Orange Red	Water clear	T1 3/4	.197/5	0.29	1.08	0.08	2.3 @ 20	4650 @ 20	634	.69	.59	.49	.39
334473CH	LDGL3333/HO	1	BGreen	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	3.5 @ 20	3400 @ 20	502	1.79	1.45	1.29	1.05
183214CH	MCDPG-503PC1	1	Green	Water clear	T1 3/4	.197/5	0.30	1.04	0.08	3.5 @ 20	2200 @ 20	515	2.95	2.65	2.39	2.15
183222CH	MCDL-513SBC4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.02	0.08	3.6 @ 20	3000 @ 20	470	3.25	2.95	2.65	2.39
334502CH	LWK3333	1	White	Water clear	T1 3/4	.197/5	0.34	0.98	0.10	3.5 @ 20	5000 @ 20	—	1.89	1.55	1.28	1.02
334772CH	UT18W3-86-UAF1-P22	1	White	Water clear	T1 3/4	.197/5	0.34	1.00	0.10	3.6 @ 20	2900 @ 20	475	2.35	2.19	1.97	1.77
183231CH	BUV-5C14WK4-B	1	White	Water clear	T1 3/4	.197/5	0.30	1.06	0.08	3.5 @ 20	3000 @ 20	—	2.95	2.65	2.39	2.15
142893CH	BUV-5E1WK4-B	1	White	Water clear	T1 3/4	.197/5	0.34	0.79	0.08	3.5 @ 20	3700 @ 20	—	3.95	3.59	2.95	2.75
320531CH	MCDL-5013UWC	1	White	Water clear	T1 3/4	.197/5	0.30	1.00	0.10	3.8 @ 20	5000 @ 20	—	1.09	.98	.76	.68
197641CH	BVT-529T13E	2	Yellow	Yellow transparent	Oval	.170/.220	0.29	1.04	0.08	2.3 @ 20	7800 @ 20	592	.69	.62	.55	.49

## HLMP Series LEDs



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical VF @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
						A"	B"					1	10	100	1000
253278CH	HLMP-1301	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.9 @ 10	5.4 @ 10	635	*	\$ .137	\$ .112	\$ .098
253366CH	HLMP-1321	Red	Tinted	T1	.119/3	0.19	1.00	0.10	1.9 @ 10	30 @ 10	635	*	.167	.13	.10
253551CH	HLMP-1340	Red	Clear	T1	.119/3	0.19	1.00	0.10	1.9 @ 20	55 @ 10	635	*	.122	.105	.076
253690CH	HLMP-1700	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.7 @ 2	2.1 @ 2	635	*	.132	.105	.086
253702CH	HLMP-K101	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.8 @ 20	45 @ 20	645	*	.203	.133	.106
253711CH	HLMP-K105	Red	Clear	T1	.119/3	0.19	1.00	0.10	2.2 @ 20	65 @ 20	645	*	.169	.152	.113
253729CH	HLMP-K150	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.8 @ 1	2.0 @ 1	645	*	.216	.171	.097
253631CH	HLMP-1503	Green	Diffused	T1	.119/3	0.19	1.00	0.10	2.1 @ 10	1.0 @ 10	565	*	.103	.076	.061
253649CH	HLMP-1521	Green	Tinted	T1	.119/3	0.19	1.00	0.10	2.7 @ 10	6.7 @ 10	565	*	.216	.171	.091
253657CH	HLMP-1523	Green	Diffused	T1	.119/3	0.19	1.00	0.10	2.1 @ 10	7.0 @ 10	565	.32	.244	.171	.095
253665CH	HLMP-1540	Green	Clear	T1	.119/3	0.19	1.00	0.10	45 @ 20	2.2 @ 20	565	*	.132	.105	.086
253681CH	HLMP-1790	Green	Diffused	T1	.119/3	0.19	1.00	0.10	2.2 @ 2	2.3 @ 2	565	*	.132	.105	.099
253673CH	HLMP-1719	Yellow	Diffused	T1	.119/3	0.19	1.00	0.10	2.5 @ 2	2.1 @ 2	583	*	.132	.105	.086
253614CH	HLMP-1401	Yellow	Diffused	T1	.119/3	0.19	1.00	0.10	2.0 @ 10	2.2 @ 10	583	*	.137	.112	.098
253622CH	HLMP-1440	Yellow	Clear	T1	.119/3	0.19	1.00	0.10	2.1 @ 20	45 @ 20	583	*	.122	.105	.076
253745CH	HLMP-3300	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.2 @ 10	3.5 @ 10	635	.33	.263	.188	.113
253753CH	HLMP-3301	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.4 @ 10	5.4 @ 10	635	*	.16	.143	.095
253788CH	HLMP-3750	Red	Clear	T1 3/4	.197/5	0.36	0.90	0.10	1.9 @ 20	125 @ 20	635	*	.141	.105	.07
253817CH	HLMP-4700	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	1.7 @ 2	2.3 @ 2	626	.31	.244	.171	.095
253841CH	HLMP-D101	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.2 @ 20	70 @ 20	645	*	.207	.171	.119
253850CH	HLMP-D150	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	1.8 @ 1	3.0 @ 1	645	.31	.244	.171	.096
11797CH	QLMP-D141*	Red	Water clear	T1 3/4	.197/5	0.29	1.05	0.07	2.0 @ 20	350 @ 20	660	*	.158	.112	.073
253868CH	HLMP-D401	Orange Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.4 @ 10	5.4 @ 10	600	*	.14	.127	.126
203553CH	HLMP-4100	Orange Red	Water clear	T1 3/4	.197/5	0.33	1.07	0.08	2.1 @ 20	600 @ 20	615	.29	.25	.20	.15
253770CH	HLMP-3507	Green	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.1 @ 10	4.2 @ 10	565	*	.169	.143	.095
253809CH	HLMP-3950	Green	Clear	T1 3/4	.197/5	0.36	0.90	0.10	1.5 @ 20	265 @ 20	565	*	.244	.171	.095
253833CH	HLMP-4740	Green	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.2 @ 2	2.3 @ 2	565	*	.244	.171	.124
253761CH	HLMP-3401	Yellow	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.0 @ 10	5.7 @ 10	583	.29	.244	.171	.095
253796CH	HLMP-3850	Yellow	Clear	T1 3/4	.197/5	0.36	0.90	0.10	2.1 @ 20	140 @ 20	583	*	.244	.171	.098
253825CH	HLMP-4719	Yellow	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.5 @ 2	2.1 @ 2	585	*	.226	.171	.096

\* 10 pcs. in LEDs &amp; LED Mounting Hardware cabinet kit, pg 61

## LEDTECH Standard and High-Output LEDs

- Typical DC forward current 20mA

**Ledtech is a QS9000 and ISO-9000 Certified Company**

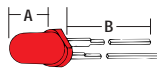


Fig. 1

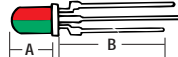


Fig. 2

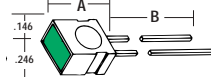


Fig. 3



152805CH



151415CH

**Lower \$\$\$**

**Quantity SAVE**

\* Prepackaged: order in increments of 10, 100 or 1000

Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter (in./mm)	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A"	B"					1	10	100	1000
156953CH	LT0373-41	1	Red Super Bright	Water clear	T1	.119/3	0.21	1.07	0.08	1.7 @ 20	600 @ 20	660	\$.24	\$.22	\$.17	\$.14
156945CH	LT0362-25-D61	2	Red/Green	White diff. bi-color tri-state	T1	.119/3	0.16	0.87	0.08	2.1 @ 20	2.7/13.3 @ 20	700/567	.29	.25	.19	.15
152750CH	LT0344R-41	1	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	52.9 @ 10	635	*	.19	.16	.12
152784CH	LT0341R-41	1	Orange Red	Red diffused	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	15.5 @ 10	635	*	.17	.15	.12
152768CH	LT0324-41	1	Green	Green clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	45 @ 20	567	*	.077	.059	.057
156929CH	LT0321-41-HE	1	Green	Green diffused	T1	.118/3	0.16	0.88	0.10	2.1 @ 20	32 @ 20	567	*	.18	.11	.10
156937CH	LT0331-41	1	Yellow	Yellow diffused	T1	.119/3	0.20	0.95	0.10	2.1 @ 20	11 @ 20	585	*	.14	.10	.07
136493CH	LT0333-41*	1	Yellow	Water clear	T1	.119/3	0.20	0.95	0.10	2.3 @ 20	38 @ 20	589	*	.19	.11	.09
215597CH	LT2K33-81-UC9T	1	Yellow	Water clear	T1 3/4	.197/5	0.31	0.89	0.10	2.2 @ 20	5000 @ 20	592	.59	.55	.49	.45
261622CH	LT1873-81-UR-P22	1	Red	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	1200 @ 20	660	.21	.20	.19	.15
242843CH	LT1811-81	1	Red	Red diffused	T1 3/4	.197/5	0.30	0.88	0.10	2.1 @ 20	4.1 @ 20	700	*	.12	.10	.06
152805CH	LT1873-81-UR	1	Red Ultra Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	2000 @ 20	660	.29	.25	.19	.15
153138CH	LT2KJ3-UR-S14	1	Orange	Water clear	T1 3/4	.197/5	0.36	0.90	0.10	2.1 @ 20	2500 @ 20	621	.49	.44	.39	.35
302033CH	LT1814-81	1	Orange	Red diffused	T1 3/4	.197/5	0.34	0.88	0.10	2.1 @ 20	23.1 @ 20	635	*	.105	.071	.054
152856CH	LT1841R-81	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	23 @ 20	635	*	.17	.15	.13
156961CH	LT1823-81-HE	1	Green	Water clear	T1 3/4	.197/5	0.34	0.87	0.10	2.1 @ 20	500 @ 20	567	*	.17	.15	.12
152821CH	LT1821-81-HE	1	Green	Green diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	96 @ 20	567	*	.16	.12	.09
175687CH	LT0524-81	1	Green	Green transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.1 @ 20	44 @ 20	567	*	.16	.12	.09
152792CH	LT1833-81-M1	1	Ylw Super Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	1040 @ 20	593	.26	.24	.19	.14
152830CH	LT1831-81-UR	1	Ylw Ultra Bright	Yellow diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.0 @ 20	424 @ 20	593	.26	.24	.20	.14
34850CH	LT7341R-81†	3	Orange Red	Red diffused rectangular	3.5 x 6	—	0.27	0.85	0.07	2.0 @ 20	5.2 @ 20	635	.29	.242	.196	.152
<b>White Diffused Backlight</b>																
151415CH	LT1F24-A2-S1	—	Green	Backlight, diffused	2.05"L x 0.78"H x 0.09"T	—	—	—	8-pin	4.2 @ 20	140 @ 20	567	\$2.95	\$2.66	\$2.12	\$1.59
302535CH	LT1F24-A2-S8	—	Green	Backlight, diffused	1.56"L x 0.98"H x 0.15"T	—	—	—	8-pin	4.2 @ 20	24.8 @ 20	567	2.95	2.65	2.39	1.95

\* 10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 61 † For Mounting Hardware, pg 61

## LED Displays

The general advantages of LED displays compared to incandescent types include:

- Lower power consumption
- Longer lifetime (averaged more than 300,000 hours)
- Compact size suitable for instrumentation and graphic representations

### Soldering:

- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W

**NEW**

**A Jameco EXCLUSIVE**



Single Digit RHDP



Single Digit RHDP/LHDP



2-Digit RHDP



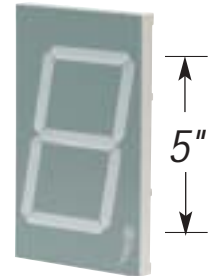
3-Digit RHDP



4x7 Hex Character



Dot Matrix



202526CH pg 60

## 7-Segment Displays

Part No.	Mfr. Cross Reference No.	Character Height	Illuminated Color	Buss Polarity*	Pins/Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing			
										1	10	100	1000
334983CH	UA3051-12	0.300"	Red	CA	10	2.1@20	0.8@10	700	RHDP	\$.78	\$.69	\$.61	\$.478
334991CH	UA3051-10	0.300"	Red	CA	10	2.1@20	0.8@10	700	LHDP	.78	.69	.66	.484
334799CH	UC3051-11	0.300"	Red	CC	10	2.1@20	0.8@10	700	RHDP	.78	.76	.61	.478
335003CH	UA3041R-12	0.300"	Hi-eff Red	CA	10	2.1@20	3.3@10	635	RHDP	.68	.60	.58	.49
334801CH	UC3041R-11	0.300"	Hi-eff Red	CC	10	2.1@20	3.3@10	635	RHDP	.68	.60	.54	.49
334810CH	UC3041R-20	0.300"	Hi-eff Red	CC	10	2.1@20	3.3@10	635	LHDP/RHDP	.86	.77	.57	.49
335011CH	UA3041-12	0.300"	Orange	CA	10	2.1@20	3.3@10	635	RHDP	.68	.60	.57	.42
335257CH	UC3671-11-M1-EWAK	0.360"	Super Bright Red	CA	10	1.7@20	6.0@10	643	RHDP	1.27	1.12	1.06	.75
334836CH	UA4071-11-UR EWAK	0.400"	Red	CA	10	1.9@20	25.6@10	660	RHDP	.88	.79	.62	.56
335020CH	UA4051-11	0.400"	Red	CA	10	2.1@20	0.8@10	700	RHDP	.69	.62	.432	.41
334844CH	UC4041R-11	0.400"	Hi-eff Red	CC	10	2.1@20	3.3@10	635	RHDP	.77	.73	.56	.44
334828CH	UC4041-11	0.400"	Orange	CC	10	2.1@20	3.3@10	635	RHDP	.78	.74	.56	.44
335046CH	UA4041-11	0.400"	Orange	CA	10	2.1@20	3.3@10	635	RHDP	.78	.74	.56	.44
335054CH	UN4043-13 EWRS	0.400"	Orange	3-digit CA	12	2.1@20	3.3@10	635	RHDP	2.25	1.96	1.88	1.37
334852CH	UC4031-11	0.400"	Green	CC	10	2.1@20	2.3@10	567	RHDP	.80	.76	.57	.452
335038CH	UA4021-11	0.400"	Green	CA	10	2.1@20	2.9@10	567	RHDP	.80	.75	.57	.452
335214CH	UC5442-11 EWRS†	0.540"	Orange	2-digit CC	18	2.1@20	3.3@10	635	RHDP	2.95	2.58	2.48	1.81
335222CH	UA5422-11 EWRS†	0.540"	Green	2-digit CA	18	2.1@20	2.9@10	567	RHDP	2.65	2.34	2.24	1.64
334887CH	UC5651-11	0.560"	Red	CC	10	2.1@20	0.8@10	700	RHDP	1.04	.99	.87	.70

\* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row

# LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

† 14 segment









## 7-Segment Displays (Continued)

Quantity SAVE

Lower \$\$\$

Part No.	Mfr. Cross Reference No.	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing			
										1	10	100	1000
334932CH	UC5652-11	0.560"	Red	2-digit CC	18	2.1 @ 20	0.8 @ 10	700	RHDP	\$ .95	\$ .90	\$ .68	\$ .65
334959CH	UA5652-11	0.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 10	700	RHDP	1.39	1.32	.98	.94
335089CH	UA5651-11	0.560"	Red	CA	10	2.1 @ 20	0.8 @ 10	700	RHDP	1.04	.99	.87	.70
335273CH	UA5654-11 EWRS	0.560"	Red	4-digit CA	36	2.1 @ 20	0.8 @ 10	700	RHDP	2.25	1.75	1.52	1.26
334895CH	UC5641R-11	0.560"	Hi-eff Red	CC	10	2.1 @ 20	3.3 @ 10	635	RHDP	.76	.74	.51	.401
334941CH	UC5642R-11	0.560"	Hi-eff Red	2-digit CC	18	2.1 @ 20	3.3 @ 10	635	RHDP	1.18	.95	.80	.64
334975CH	UA5642R-11	0.560"	Hi-eff Red	2-digit CA	18	2.1 @ 20	3.3 @ 10	635	RHDP	.85	.84	.63	.60
335100CH	UA5641R-11	0.560"	Hi-eff Red	CA	10	2.1 @ 20	3.3 @ 10	635	RHDP	.75	.67	.50	.394
335311CH	UA5641-11	0.560"	Orange	CA	10	2.1 @ 20	3.3 @ 10	635	RHDP	.60	.50	.40	.38
334879CH	UC5641-11	0.560"	Orange	CC	10	2.1 @ 20	3.3 @ 10	635	RHDP	.65	.60	.416	.401
335151CH	UA5642-1	0.560"	Orange	2-digit CA	18	2.1 @ 20	3.3 @ 10	635	RHDP	.88	.81	.64	.58
334924CH	UC5642-11	0.560"	Orange	2-digit CC	18	2.1 @ 20	3.3 @ 10	635	RHDP	1.03	.89	.61	.58
335185CH	UM5644R-11 RRRS	0.560"	Orange	4-digit CC	12	2.1 @ 20	3.3 @ 10	635	RHDP	2.59	2.34	2.24	1.64
335126CH	UA5621-11	0.560"	Green	CA	10	2.1 @ 20	2.9 @ 10	562	RHDP	.75	.61	.40	.38
334861CH	UC5621-11	0.560"	Green	CC	10	2.1 @ 20	2.9 @ 10	567	RHDP	.81	.80	.546	.423
334967CH	UA5622-11	0.560"	Green	2-digit CA	18	2.1 @ 20	2.9 @ 10	567	RHDP	1.65	1.45	1.20	.96
334916CH	UC5622-11	0.560"	Green	2-digit CC	18	2.1 @ 20	2.9 @ 10	567	RHDP	1.04	.99	.74	.70
335169CH	UC5624-11 EWRS	0.560"	Green	4-digit CC	36	2.1 @ 20	2.9 @ 10	567	RHDP	2.59	2.46	1.67	1.51
335177CH	UA5624-11 EWRS	0.560"	Green	4-digit CA	36	2.1 @ 20	2.9 @ 10	567	RHDP	2.59	2.25	2.05	1.69
335193CH	UM5624-11 EWRS	0.560"	Green	4-digit CC	12	2.1 @ 20	2.9 @ 10	567	RHDP	2.59	2.34	2.24	1.64
334908CH	UC8041-21 EWRS	0.800"	Orange	CC	13	2.1 @ 20	3.8 @ 10	635	RHDP	1.29	1.05	.88	.70

   Other Manufacturers — Limited Great Deals   													
24731CH	LSD3021-11	.300"	Red	CA	11	1.9 @ 20	0.3 @ 20	697	RHDP	\$ .87	\$ .70	\$ .50	\$ .47
308187CH	LC3041R-RRRN	.300"	Hi-eff Red	CC	10	2.1 @ 20	3.3 @ 10	635	LHDP/RHDP	.73	.64	.59	.56
24740CH	LSD3221-11	.300"	Red	CA	11	2.1 @ 20	2.5 @ 20	697	LHDP	.79	.72	.64	.58
320469CH	UA3031-16-EWRN	.300"	Yellow	CA	11	3.0 @ 20	2.3 @ 10	585	LHDP/RHDP	.71	.64	.58	.518
24782CH	LSD3211-11	.300"	Red	CC	10	2.1 @ 20	2.5 @ 20	697	RHDP	.89	.75	.65	.49
308179CH	LC3951-11EWAK	.390"	Red	CC	10	2.1 @ 20	0.6 @ 10	700	RHDP	.79	.73	.68	.67
17187CH	LSD5051-11	.500"	Red	CC	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.80	.72	.65
17208CH	LSD5061-11	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75	.65	.49
104213CH	LSD5124-10	.560"	Orange Red	CA	10	2.0 @ 20	2.4 @ 20	635	RHDP	.89	.80	.64	.48
308224CH	LM5643R-11RRRN	.560"	Orange	3-digit CC	11	2.1 @ 20	3.3 @ 10	635	RHDP	2.25	2.05	1.79	1.69
308232CH	LM5644R-11RRRN	.560"	Orange	4-digit CC	12	2.1 @ 20	3.3 @ 10	635	RHDP	2.75	2.45	2.19	2.09
199531CH	LSD5111-11	.560"	Red	CC	10	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.11	.89	.66
24715CH	LDD5121-20	.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
24723CH	LDD5111-11	.560"	Red	2-digit CC	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
200379CH	LB602VAGI	.560"	Red	2-digit CA	18	2.0 @ 10	16 @ 10	650	RHDP	1.19	1.07	.86	.64
24694CH	LDD5124	.560"	Orange Red	2-digit CA	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.69	1.52	.96	.73
24707CH	LDD5114-20	.560"	Orange Red	2-digit CC	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.59	1.43	.98	.69
200539CH	ELD56YWA	.560"	Yellow	2-digit CA	18	2.0 @ 20	1.9 @ 10	590	RHDP	1.39	1.15	1.00	.75
308216CH	LA5622-11EWRN	.560"	Green	2-digit CA	18	2.1 @ 20	2.9 @ 10	567	RHDP	.87	.65	.56	.53
225963CH	KW3-562A2B	.560"	Green	3-digit CA	28	2.2 @ 20	15 @ 20	568	RHDP	2.39	2.15	1.95	1.25
199582CH	LC56311	.560"	Yellow	CC	8	2.1 @ 20	5.2 @ 20	589	RHDP	1.49	1.25	1.09	.79
18737CH	LSD816-11	.800"	Orange Red	CA	13	1.6 @ 20	0.9 @ 20	655	RHDP	1.49	1.35	1.19	.99
308259CH	LA8071-11-MIEWRW	.800"	Red	CA	13	1.7 @ 20	8.9 @ 10	660	LHDP/RHDP	1.39	1.25	1.13	1.07
18753CH	LSD8151-10	.800"	Red	CC	13	2.1 @ 20	1.0 @ 20	697	RHDP	1.49	1.34	1.07	.80
206017CH	SC08-11HWA	.800"	Red	CC	13	2.0 @ 20	.36 @ 10	700	RHDP	1.49	1.35	1.05	.80
176559CH	C8021-1	.800"	Green	CC	13	2.0 @ 20	0.9 @ 20	568	RHDP	.49	.44	.35	.26
308161CH	LA2541-24EWRN	1.0"	Orange	CA	10	4.2 @ 20	5.2 @ 10	635	RHDP	2.89	2.65	2.29	2.15
97172CH	LSD10061-10	1.0"	Red	CA	10	2.1 @ 20	2.0 @ 20	697	RHDP	1.39	1.25	1.12	.99
97199CH	LSD23265-10	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	5.75	5.19	4.69	4.19
97201CH	LSD23255-10	2.24"	Red	CC	10	1.7 @ 20	21 @ 20	660	RHDP	4.49	3.95	3.25	2.95
308208CH	LA2321-42EWRN	2.24"	Green	CA	10	4.2 @ 40	2.7 @ 10	567	RHDP	8.45	8.15	6.59	5.25
202518CH	LSD30165-20	3.0"	Orange Red	CA	10	8 @ 20	4.5 @ 10	635	RHDP	7.39	6.65	5.32	3.99
202542CH	LSD30155-20	3.0"	Orange Red	CC	10	8 @ 20	4.5 @ 10	635	RHDP	5.49	4.95	4.45	4.05
105591CH	LSD40054-20†	4.0"	Orange Red	CC	10	2.0 @ 20	18 @ 20	635	RHDP	9.49	8.29	7.49	6.49
202500CH	LSD40064-20	4.0"	Orange Red	CA	10	2.0 @ 20	18 @ 10	635	RHDP	10.49	9.49	8.59	7.79
202526CH	LSD50065-20	5.0"	Red	CA	10	17 @ 20	45 @ 10	660	RHDP	34.99	30.19	24.15	19.55
202534CH	LSD50055-20	5.0"	Red	CC	10	17 @ 20	45 @ 10	660	RHDP	17.95	14.35	12.95	11.65

\* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row # LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point † 5 diodes per segment ⚡ Blue P/N = Limited Quantity Available

Jameco's Got The Docs

We offer free technical documents for most of the products we carry.  
Find them easily on the product spec page @ [www.Jameco.com](http://www.Jameco.com)

## LEDs Displays (Dot Matrix)

Part No.	Mfr. Cross Reference No.	Jameco Socket Number	Character Height	Illuminated Color	Buss Polarity*	Pins/Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing			
											1	10	100	1000
173833CH	HP5082-7300	—	.290"	Red	4x7 Numeric	8	5.0 @ 170	.03 @ 20	660	RHDP	\$4.95	\$4.46	\$4.01	\$3.34
32951CH	TIL311	37161CH	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	—	16.95	14.35	12.20	11.45
308152CH	LA5041R-11BRRRN	—	0.500"	Orange	Alphanumeric	18	2.1 @ 20	7.4 @ 10	635	RHDP	1.69	1.49	.89	.85
118906CH	LTP747R	37161CH	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	0.2 @ 20	655	—	1.95	1.79	1.45	1.05
218843CH	CSM57041T-11	—	.700"	Red	5 x 7 CC/CR	12	1.8 @ 20	8 @ 20	660	—	1.95	1.76	1.40	1.05
308144CH	LJ5763-M1FEWRN	—	1.10"	Red/Green	5 x 7 CC/AR	20	1.7/2.1 @ 20	10.8/20.0 @ 10	660/567	—	4.05	3.45	3.25	3.09
335281CH	UJ1141-21 EWRN	—	1.2"	Orange	5 x 7 CC/AR	14	2.1 @ 20	4.6 @ 10	635	—	5.49	4.95	4.45	3.94
335290CH	UJ2041-22 EWRN	—	2.0"	Orange	5 x 7 CC/AR	14	2.1 @ 20	6.0 @ 10	630	—	3.65	3.26	3.14	2.73
206560CH	LTP2157AG	—	2.0"	Green	5 x 7 CC/AR	14	3.7 @ 80	4.8 @ 80	565	—	2.59	2.35	2.13	1.94
183265CH	LMD5821ASR-20	—	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	12 @ 20	660	—	4.95	4.49	3.95	3.49
308110CH	LJ4071-22 EWRN	—	3.60"	Red	5 x 7 CC/AR	14	3.4 @ 20	30.4 @ 10	660	—	15.45	15.09	14.75	14.25
308128CH	LJ4071-22 BRRN	—	3.60"	Red	5 x 7 CC/AR	14	3.4 @ 20	30.4 @ 10	660	—	15.45	15.09	14.76	14.25
308136CH	LJ4071-22 BWRN	—	3.60"	Red	5 x 7 CC/AR	14	3.4 @ 20	30.4 @ 10	660	—	20.65	16.49	14.75	14.25

\* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row

# LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

## LED Tester

This pocket-size LED tester makes it easy to check functionality, color, brightness and uniformity. Plug any leaded LED into one of 12 positions on the socket strip to test at current ratings from 2-50mA. The seven middle positions on the strips are set at 10mA allowing comparison of LEDs in those spaces.



NEW

Requires: 9V battery (recommend P/N 198791CH, pg 183)  
• Size: 3.2"L x 2.4"W x 0.9"H

Part No.	Description	Price
354968CH	LED tester	\$8.55

## Practical Electronics Book for Inventors

McGraw-Hill Publishing

Provides information needed for practical use in a format you can understand. With hand drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares it with other similar devices. (604 pages, 2000)

• Size: 8.4" x 11" • Weight: 2.8 lbs.



Part No.	Description	Price
174529CH	Practical Electronics Book for Inventors	\$39.95

## Electronic Pocket Reference

Third Edition McGraw-Hill Publishing

A pocket reference manual that provides definitions, passive component equations and color coding, parameters of standard semi-conductors, linear circuits, filters, power supply and regulation, electronic measurement and mathematical tables and formulas. (529 pages, 2000)

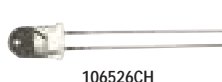
• Size: 4.0" x 6.0" • Weight: 0.9 lbs.



Part No.	Description	Price
174481CH	Electronics Pocket Reference	\$26.95

## Infrared and Visible Light Emitters and Detectors

- Use for remote control and/or for fiber optics
- P/N 133946CH: Can be used with cameras, see page 206 (peak emission wavelength: 940nm @ 20mA)



106526CH

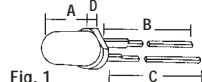


Fig. 1

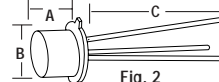


Fig. 2



172321CH (Fig. 3)

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Size	Diameter inch/mm	Dimensions (inches)				Vf @ If	nm	mWatts	Pricing			
						A	B	C	D				1	10	100	1000
112150CH	LIR2043	1	Infrared emitter diode (GaAs)	T1	0.125/3	0.18	0.95	0.98	0.03	1.2V @ 20mA	940	5	\$ .22	\$ .18	\$ .14	\$ .12
133946CH	SLI-0308CP	1	Infrared emitter diode (GaAs)	T1	0.12/3	0.22	0.98	1.00	0.03	1.3V @ 50mA	940	4	.62	.53	.40	.31
112176CH	LPT2023	1	Infrared phototransistor	T1	0.12/3	0.18	0.95	0.98	0.03	—	940	—	.39	.29	.19	.15
106526CH	LVIR3333	1	Infrared emitter diode (GaAs)	T1 3/4	0.200/5	0.34	0.78	0.84	0.04	1.2V @ 20mA	940	8	.39	.29	.19	.15
112168CH	LPT3313	1	Infrared phototransistor	T1 3/4	0.200/5	0.31	1.05	1.10	0.04	—	940	—	.36	.30	.24	.20
120221CH	BPW77NA	2	Visible light phototransistor	TO-18	—	0.24	0.19	0.52	—	—	850	—	1.59	1.55	1.49	1.39
172321CH	OP133	3	Infrared emitter diode (GaAs)	TO-46	—	0.22	0.18	1.05	0.20	1.4V @ 100mA	935	5	2.15	1.95	1.69	1.59

## LED Cabinet Kit and LED Mounting Hardware

## LEDs &amp; LED Mounting Hardware Kit

Includes:

- 20-drawer component cabinet (319599CH), 20 clear plastic drawers (319601CH), 20 clear dividers (319610CH), pg 244 and labels
- 10 ea. standard-output LEDs (34657CH, 114673CH, 114681CH, 34606CH, 175695CH, 34825CH, 34690CH, 11359CH, 34761CH, 34711CH, 104248CH, 104256CH, 34673CH), pg 59 and 136493CH, above
- 10 ea. HLMP series LEDs (11797CH), pg 58
- 10 ea. LED lens mount (14277CH), right
- 100 ea. LEDs (94529CH, 135597CH), pg 57
- 100 ea. LED mounting hardware (95513CH, 23077CH), right



SAVE \$25

Part No.	Description	Wt. (lbs.)	1	10
84996CH	560 pcs. kit	5.0	\$66.95	\$60.25

## LED Mounting Hardware

- P/N 95521CH: for use with P/N 94545CH and 34850CH, pg 56



Quantity SAVE

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Description	Color	Mounting Hole Dia.	Panel Thickness	Pricing		
						10	100	1000
95513CH	LMH100	T1 snap-in	Black	.185"	Up to .070"	\$ .08	\$ .07	\$ .04
23077CH	LMH200	T1 3/4 ring & clip	Black	.257"	Up to .125"	.15	.135	.12
95521CH	LMH250	Rect. snap-in	Black	.306" x .202"	Up to .092"	.20	.17	.127



## T1 3/4 Ciplite® LED Lens Mount

- Requires no assembly tools, just snap in
- Material: lens – polycarbonate; spacer – nylon
- Increases viewing angle to 180°
- Helps guard against electrostatic discharge up to 16kV



29612CH

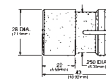


Fig. 1 (5mm)

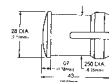


Fig. 2 (5mm)

Part No.	Product No.	Description	Color	Fig.	Mounting Hole Dia.	Panel Thickness	Pricing			
							1	10	100	1000
14277CH	CLF280CTP	T1 3/4	Clear	1	.25"	.063" – .125"	\$ .25	\$ .19	\$ .16	\$ .14
29612CH	CLF280RTP	T1 3/4	Red	1	.25"	.063" – .125"	.28	.247	.219	.188
124927CH	CLB300CTP	T1 3/4	Clear	2	.25"	.031" – .25"	.25	.19	.16	.14

# Incandescent and Neon Panel Mount Indicators

Color Code Legend			
New	Sale	Lower\$	QtySave

**Quantity SAVE**

## Incandescent Panel Mount Lamps

**SALE**

- 215781CH/215790CH/215773CH: wire length - 3.9" (100mm)
- 215749CH/215757CH/215765CH: wire length - 4.9" (125mm)
- 215714CH/215722CH/215731CH: solder terminals - 0.196" (5mm)

☛ Blue Part No. = Limited Quantity Available

Part No.	Mfr. Cross Ref. No.	Fig.	Voltage	Color	Mounting Hole	1	10	100
215773CH	R9-46B-W100-12V-R	1	12	Red	1/2" (13mm)	\$1.79	\$1.61	<b>\$1.37</b>
215781CH	R9-46B-W100-12V-Y ☛	1	12	Yellow	1/2" (13mm)	<del>\$1.79</del> 1.65	1.45	1.19
215790CH	R9-46B-W100-12V-G	1	12	Green	1/2" (13mm)	1.79	1.61	<b>1.37</b>
215749CH	R9-55B-W130-12V-R	2	12	Red	9/32" (7mm)	1.79	1.59	1.35
215757CH	R9-55B-W130-12V-Y	2	12	Yellow	9/32" (7mm)	<del>\$1.79</del> 1.65	1.45	1.19
215765CH	R9-55B-W130-12V-G	2	12	Green	9/32" (7mm)	1.79	1.59	1.35
215714CH	R9-71B-05-12V-R	3	12	Red	5/8" (16mm)	1.79	1.61	<b>1.37</b>
215722CH	R9-71B-05-12V-Y ☛	3	12	Yellow	5/8" (16mm)	<del>\$1.79</del> 1.65	1.45	1.19
215731CH	R9-71B-05-12V-G	3	12	Green	5/8" (16mm)	1.79	1.61	<b>1.37</b>

Fig. 1

Fig. 2

Fig. 3

## Neon Panel Mount Lamps

- Input voltage: 120V
- Mounting hole diameter: 5/8" (16mm)
- Solder terminals: 0.196" (5mm)

215802CH: Red

215811CH: Yellow

215829CH: Green

Part No.	Mfr. Cross Ref. No.	1	10	100
215802CH	R9-71N-05-120V-R ..	\$1.79	\$1.59	\$1.35
215811CH	R9-71N-05-120V-Y ....	1.79	1.59	1.35
215829CH	R9-71N-05-120V-G ....	1.79	1.59	1.35

## Lamps and LED Accessories



### T1 & T1 3/4 Ciplite® Lens and Conxrite® Cable Assembly

**Ciplite® Lens:** • Material: (lens) polycarbonate: (ring) polypropylene (UL Listed)  
• Mounts through front panel in 0.171" hole diameter, panel thickness: 1/32" to 3/32"

**Conxrite® Cable Assembly:** • Terminals: phosphor bronze, tin-plated  
• Connector socket and ring/header connector: thermoplastic (UL Listed)  
• Wire: 22AWG, 7 strand copper, insulated

**Quantity SAVE**

Part No.	Product No.	Size	Description	1	10	100	1000
143183CH	SMC170CTP	T1	Clear Ciplite® lens	\$0.23	\$0.203	\$0.169	\$0.129
143132CH	CMC321CTP	T1 3/4	Clear Ciplite® lens	.25	.22	.18	<b>.14</b>
143087CH	BE2108	T1	8.5" cable assembly	1.25	1.13	1.05	.99
143036CH	CE2108	T1 3/4	8.5" cable assembly	1.29	1.25	1.19	1.15
143052CH	CE2118	T1 3/4	18" cable assembly	1.55	1.39	1.20	1.09

## LED Panel-Mount Indicators

- Easy panel installation
- Panel/status/instrument indicators

141111CH/141129CH/141137CH: Chrome housing

236427CH/236419CH: Black nylon housing

Part No.	Mfr. Cross Ref. No.	LED Size	Color	Dimensions (in.)			Mounting Hole	Vf @ If	Pricing			
				L	A	B			1	10	100	1000
236427CH	5102H5-12V	T1 3/4	Green	.53	6.0	6.0	.25"	12V @ 15mA	\$1.25	\$1.12	\$0.90	<b>\$0.68</b>
236419CH	5102H1-12V	T1 3/4	Red	.53	6.0	6.0	.25"	12V @ 15mA	1.19	1.07	.86	.64
141111CH	L922SRD	T1	Red	.56	.34	.25	.23"	12V @ 20mA	.79	.60	.52	.45
141129CH	L913RD	T1	Red	.56	.39	.32	.24"	12V @ 20mA	1.09	.81	.69	.61
141137CH	L917RD	T1 3/4	Red	.70	.55	.47	.31"	12V @ 20mA	.89	.79	.71	.55



### Cluster-Type T1 3/4 LED Lamps

- Cluster-type red/green T1 3/4 LEDs
- Lens: water clear
- Common anode
- 3 lead wires
- 660nm for red/570nm for green
- 3 lead wires

150914CH: 50 Cluster (30 green/20 red)

150922CH: 14 Cluster (8 green/6 red)

150914CH

Part No.	Product No.	Vf @ If	mcd @ mA	Lead Wire	Mounting Hole Dia.	Dimensions (Dia. x L)	Pricing		
							1	10	100
150914CH	LCR5250A-79	20.5V @ 40mA	12,000 @ 40	16"	M4	2.07 x 1.98	\$13.19	\$11.99	\$11.35
150922CH	LCR2614B-79	10V @ 20mA	1950 @ 20	7"	M3	1.02 x 1.51	4.95	4.21	<b>3.16</b>

## Miniature Fluorescent Lamps

Add fluorescent color to your projects, computer case, car and other displays with these economical lights. Now you can easily and affordably mount these 4" light tubes to add cool cold-cathode effects and give your display a richer, trick look and feel. Optional power supply below converts 12VDC input into 180V - 800V output needed by lights.

Part No.	Prod. No.	Description	1	10	25
239610CH	FLW1	White light ....	\$9.95	\$8.95	\$7.95
239572CH	FLB1	Blue light .....	9.95	8.95	7.95
239581CH	FLBL1	Black light .....	9.95	8.95	7.95
239628CH	FLY1	Yellow light ....	9.95	8.95	7.95
239601CH	FLP1	Pink light .....	9.95	8.95	7.95
239599CH	FLG1	Green light .....	9.95	8.95	7.95
239636CH	FLPS1	12VDC PS .....	9.95	8.95	7.95

## Lowest Price Guarantee

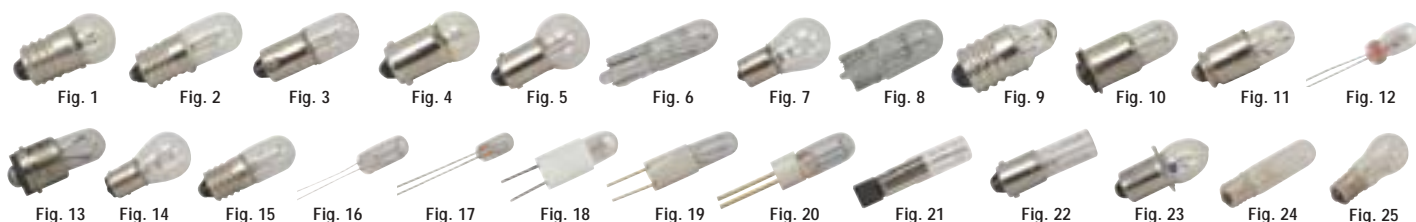
Found a product at a lower print advertised price?  
We'll beat that price by 10%  
right down to our cost!

## CdS Photocells

- Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, opto-couplers
- Generate variable signal based on detection of light levels
- Soldering: 230°C for 3 seconds
- Operating temperature: -30°C to +70°C
- Cadmium Sulfide (CdS)

Part No.	Mfr. Cross Ref. No.	Rating		Resistance (Ω)		Size (inches)		Lead Spacing (inches)	Lead Length (inches)	Pricing			
		Vp	mW	Dark	Light	A	B			1	10	100	1000
120299CH	136055CH	50	200	100k	10k	0.40	0.44	0.30	1.50	\$0.89	\$0.80	\$0.69	<b>\$0.52</b>
	202366CH	150	90	300k	4k	0.14	0.17	0.10	1.02	1.69	1.52	1.22	<b>.91</b>
	120310CH	150	90	2M	27k	0.14	0.17	0.10	1.44	1.45	1.20	1.09	.99
	202374CH	150	90	5M	80k	0.14	0.17	0.10	1.02	<del>\$1.79</del> 1.65	1.45	1.16	.87
	202391CH	150	90	10M	5k	0.14	0.17	0.10	1.02	1.49	1.35	1.19	1.09
	202382CH	150	90	20M	10k	0.14	0.17	0.10	1.02	1.49	1.34	1.21	.99
	202420CH	150	100	500k	16k	0.17	0.20	0.13	1.02	1.55	1.35	1.25	1.05
	202403CH	150	100	200k	3k	0.17	0.20	0.13	1.02	1.49	1.35	1.19	1.09
	202411CH	150	100	5M	80k	0.17	0.20	0.13	1.02	.69	.65	.59	.55
	202438CH	200	150	500k	15k	0.25	0.29	0.20	1.02	1.49	1.34	1.07	<b>.80</b>
	120301CH	200	150	300k	3k	0.25	0.29	0.20	1.02	1.79	1.59	1.45	1.29
	120299CH	350	400	300k	8k	0.37	0.43	0.30	1.44	1.79	1.59	1.45	1.29
	202454CH	350	400	1M	12k	0.37	0.43	0.30	1.44	1.69	1.55	1.35	1.15





## Incandescent Lamps

**SALE**

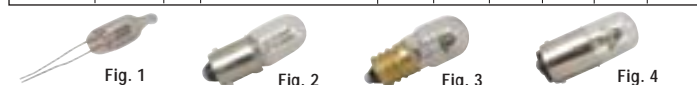
\* Prepackaged: order in increments of 5, 10 or 100

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Volts	MSCP	Pricing			
						1	5	10	100
209381CH	13	1	G3 1/2 miniature screw	3.7	.98	\$.79	\$.75	\$.69	\$.59
209390CH	14	1	G3 1/2 miniature screw	2.47	.50	\$.55	\$.52	\$.49	\$.45
209402CH	40	2	T3 1/4 miniature screw	6.3	.50	*	\$.29	\$.19	\$.15
209411CH	44	3	T3 1/4 miniature bayonet	6.3	.90	*	\$.22	\$.17	\$.13
209429CH	46	2	T3 1/4 miniature screw	6.3	.90	*	\$.37	\$.32	\$.27
209437CH	47	3	T3 1/4 miniature bayonet	6.3	.50	*	\$.22	\$.17	\$.13
209445CH	50	1	G3 1/2 miniature bayonet	7.5	1.0	\$.59	\$.54	\$.49	\$.44
210403CH	51	4	G3 1/2 miniature bayonet	7.5	1.0	*	\$.35	\$.29	\$.24
209453CH	53	4	G3 1/2 miniature bayonet	14.4	1.0	\$.49	\$.44	\$.39	\$.29
210411CH	55	5	G4 1/2 miniature bayonet	7.0	2.0	*	\$.20	\$.14	\$.09
209461CH	73	6	T1 3/4 wedge	14.0	.30	*	\$.24	\$.19	\$.16
209470CH	85	6	T1 3/4 wedge	28.0	.30	*	\$.24	\$.21	\$.17
209488CH	86	6	T1 3/4 wedge	6.3	.40	*	\$.24	\$.19	\$.15
209496CH	93	7	S-8 snl contact bayonet	12.8	15.0	\$.59	\$.54	\$.49	\$.44
209509CH	161	8	T3 1/4 wedge	14.0	1.0	*	\$.25	\$.19	\$.15
209517CH	168	8	T3 1/4 wedge	14.0	3.0	*	\$.24	\$.19	\$.14
209525CH	194	8	T3 1/4 wedge	14.0	2.0	*	\$.24	\$.19	\$.14
209533CH	222	9	GTL-3 miniature screw	2.25	—	*	\$.29	\$.24	\$.22
209541CH	259	8	T3 1/4 wedge	6.3	.65	*	\$.24	\$.19	\$.16
209550CH	313	3	T3 1/4 miniature bayonet	28.0	3.5	*	\$.25	\$.19	\$.16
209568CH	327	10	T1 3/4 midget flange	28.0	.34	*	\$.29	\$.24	\$.22
209576CH	328	10	T1 3/4 midget flange	6.0	.60	\$.49	\$.44	\$.39	\$.34
209584CH	330	10	T1 3/4 midget flange	14.0	.50	*	\$.39	\$.34	\$.29
209592CH	334	11	T1 3/4 midget groove	28.0	.34	*	\$.39	\$.35	\$.29
209608CH	335	15	T1 3/4 midget screw	28.0	.34	\$.49	\$.44	\$.39	\$.32
209613CH	344	10	T1 3/4 midget flange	10.0	.002	\$.99	\$.89	\$.79	\$.69
209621CH	345	10	T1 3/4 midget flange	6.0	.03	\$.59	\$.49	\$.45	\$.35
209630CH	370	10	T1 3/4 midget flange	18.0	.15	\$.89	\$.79	\$.69	\$.59
209648CH	376	10	T1 3/4 midget flange	28.0	.34	\$.59	\$.49	\$.39	\$.29
209656CH	379	11	T1 3/4 midget groove	6.3	.40	\$.69	\$.59	\$.49	\$.39
209664CH	381	10	T1 3/4 midget flange	6.3	.40	\$.49	\$.45	\$.39	\$.29
209672CH	382	10	T1 3/4 midget flange	14.0	.30	\$.49	\$.45	\$.39	\$.29
209681CH	385	10	T1 3/4 midget flange	28.0	.15	\$.49	\$.45	\$.38	\$.29
209699CH	386	11	T1 3/4 midget groove	14.0	.30	*	\$.39	\$.33	\$.27
209701CH	387	10	T1 3/4 midget flange	28.0	.30	*	\$.37	\$.25	\$.23
209710CH	388	11	T1 3/4 midget groove	28.0	.30	*	\$.35	\$.29	\$.25
209728CH	394	10	T1 3/4 midget flange	12.0	.12	\$.49	\$.45	\$.39	\$.32
209736CH	656	8	T3 1/4 wedge	28.0	.62	*	\$.24	\$.19	\$.15
209752CH	657	8	T3 1/4 wedge	28.0	.62	*	\$.25	\$.20	\$.15
202100CH	683	12	T1 wire terminal	5.0	.05	\$.49	\$.39	\$.35	\$.28
209761CH	685	13	T1 sub midget flange	5.0	.05	\$.99	\$.89	\$.79	\$.69
209779CH	715	12	T1 wire terminal	5.0	.15	\$.89	\$.79	\$.69	\$.59
209787CH	755	3	T3 1/4 miniature bayonet	6.3	.33	\$.49	\$.44	\$.37	\$.30
209795CH	756	3	T3 1/4 miniature bayonet	14.0	.31	\$.59	\$.54	\$.49	\$.39
209808CH	757	3	T3 1/4 miniature bayonet	28.0	.62	*	\$.35	\$.32	\$.27
210438CH	1156	7	S-8 snl contact bayonet	12.8	32	\$.49	\$.45	\$.39	\$.35
210446CH	1157	14	S-8 double contact index	12.8/14	32/3	*	\$.39	\$.35	\$.29
209816CH	1450	4	G3 1/2 miniature bayonet	24.0	.23	\$.99	\$.89	\$.79	\$.69
209824CH	1813	3	T3 1/4 miniature bayonet	14.4	.86	*	\$.29	\$.24	\$.22
209832CH	1815	3	T3 1/4 miniature bayonet	14.0	1.4	\$.49	\$.39	\$.29	\$.25
209841CH	1816	3	T3 1/4 miniature bayonet	13.0	3.0	*	\$.29	\$.24	\$.19
209859CH	1818	3	T3 1/4 miniature bayonet	24.0	3.3	\$.99	\$.89	\$.79	\$.69
209867CH	1819	3	T3 1/4 miniature bayonet	28.0	.34	*	\$.25	\$.19	\$.15
209875CH	1820	3	T3 1/4 miniature bayonet	28.0	1.6	\$.49	\$.39	\$.34	\$.24
209883CH	1821	15	T3 1/4 screw	28.0	3.4	\$.99	\$.89	\$.79	\$.69
209891CH	1822	3	T3 1/4 miniature bayonet	36.0	2.1	\$.49	\$.39	\$.29	\$.25
209904CH	1829	3	T3 1/4 miniature bayonet	28.0	1.0	*	\$.29	\$.24	\$.19

## Incandescent Lamps (Continued)

\* Prepackaged: order in increments of 5, 10 or 100

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Volts	MSCP	Pricing			
						1	5	10	100
209912CH	1835	3	T3 1/4 miniature bayonet	55.0	1.1	\$.49	\$.39	\$.29	\$.24
209921CH	1847	3	T3 1/4 miniature bayonet	6.3	.38	\$.49	\$.39	\$.29	\$.24
209939CH	1850	3	T3 1/4 miniature bayonet	5.0	.25	\$.49	\$.39	\$.29	\$.24
209947CH	1864	3	T3 1/4 miniature bayonet	28.0	3.0	\$.49	\$.39	\$.29	\$.24
209955CH	1866	3	T3 1/4 miniature bayonet	6.3	.65	*	\$.39	\$.29	\$.19
209963CH	1891	3	T3 1/4 miniature bayonet	14.0	2.0	\$.49	\$.39	\$.29	\$.19
209971CH	1893	3	T3 1/4 miniature bayonet	14.0	2.0	\$.49	\$.39	\$.29	\$.24
141073CH	2182	16	T1 3/4 wire terminal	14.0	.30	\$.49	\$.44	\$.39	\$.34
141065CH	2200	16	T1 3/4 wire terminal	5.0	.05	\$.59	\$.54	\$.49	\$.44
141057CH	6833	17	T 3/4 wire terminal	5.0	.05	1.29	1.15	\$.99	\$.89
209998CH	7219	12	T1 wire terminal	12.0	.15	*	\$.29	\$.25	\$.19
210008CH	7328	18	T1 3/4 bi-pin	6.0	.60	\$.89	\$.79	\$.69	\$.59
210016CH	7335	10	T1 3/4 midget flange	5.0	.15	\$.69	\$.59	\$.49	\$.39
210024CH	7341	10	T1 3/4 midget flange	28.0	.65	\$.79	\$.69	\$.59	\$.49
141006CH	7361	18	T1 3/4 bi-pin	5.0	.05	\$.99	\$.89	\$.79	\$.69
210032CH	7382	18	T1 3/4 bi-pin	14.0	.30	\$.49	\$.39	\$.35	\$.29
210041CH	7387	18	T1 3/4 bi-pin	28.0	.30	\$.49	\$.45	\$.39	\$.29
210059CH	7632	19	T1 1/4 bi-pin	28.0	.32	1.29	\$.99	\$.89	\$.79
210067CH	7683	20	T1 bi-pin	5.0	.05	1.19	\$.99	\$.89	\$.79
210075CH	7715	20	T1 bi-pin	5.0	.15	1.19	\$.99	\$.89	\$.79
210083CH	7839	20	T1 bi-pin	28.0	.15	1.19	\$.99	\$.89	\$.79
210227CH	6PSB	21	T2 tel. slide base type 5	6.0	550	\$.79	\$.69	\$.59	\$.49
309673CH	6S6	25	S6 candelabra	120	—	\$.84	\$.80	\$.76	\$.72
210112CH	12ESB	21	T2 tel. slide base type 5	12.0	650	\$.69	\$.59	\$.55	\$.49
210121CH	12PSB	21	T2 tel. slide base type 5	12.0	2000	\$.69	\$.65	\$.59	\$.49
309681CH	20T6 1/2	24	T6 1/2 20W intermediate	120	—	1.69	1.59	1.55	1.45
210139CH	24ESB	21	T2 tel. slide base type 5	24.0	850	\$.69	\$.65	\$.59	\$.49
210147CH	24MB	22	T2 miniature bayonet	24.0	3000	\$.99	\$.89	\$.79	\$.69
210155CH	24PSB	21	T2 tel. slide base type 5	24.0	3000	\$.59	\$.55	\$.49	\$.45
210163CH	28ESB	21	T2 tel. slide base type 5	28.0	1500	\$.79	\$.69	\$.59	\$.49
210171CH	28MB	22	T2 miniature bayonet	28.0	1600	\$.89	\$.79	\$.69	\$.59
210180CH	28PSB	21	T2 tel. slide base type 5	28.0	1600	\$.69	\$.59	\$.49	\$.45
210198CH	48PSB	21	T2 tel. slide base type 5	48.0	1800	\$.89	\$.79	\$.69	\$.59
210201CH	60MB	22	T2 miniature bayonet	60.0	2200	\$.89	\$.79	\$.69	\$.59
210219CH	60PSB	21	T2 tel. slide base type 5	60.0	2200	\$.69	\$.59	\$.55	\$.49
210091CH	120MB	22	T2 miniature bayonet	120.0	1200	\$.69	\$.65	\$.59	\$.55
210104CH	120PSB	21	T2 tel. slide base type 5	120.0	1200	\$.69	\$.65	\$.59	\$.55
210340CH	PR2	23	B3 1/2 snl cont. mini flange	2.38	.80	*	\$.24	\$.20	\$.15
210358CH	PR3	23	B3 1/2 snl cont. mini flange	3.57	1.5	*	\$.24	\$.20	\$.15
210366CH	PR4	23	B3 1/2 snl cont. mini flange	2.33	.40	*	\$.24	\$.20	\$.15
210374CH	PR6	23	B3 1/2 snl cont. mini flange	2.47	.45	*	\$.24	\$.20	\$.15



## Neon Lamps

\* Prepackaged: order in increments of 5, 10 or 100

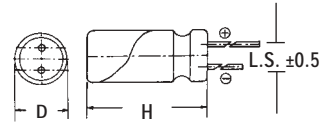
Part No.	Mfr. Cross Ref. No.	Fig.	Description	Voltage	Pricing			
					1	5	10	100
27351CH	A1A (NE-2)	1	Wire terminal	65-120	*	\$.35	\$.31	\$.26
210243CH	A1B	1	Wire terminal	65-120	*	\$.28	\$.25	\$.24
210251CH	A1C	1	Wire terminal	65-120	*	\$.39	\$.29	\$.25
210260CH	A9A (NE-2E)	1	Wire terminal	65-120	*	\$.29	\$.25	\$.19
210278CH	B1A (NE-51)	2	T3 1/4 miniature bayonet	65-120	\$.79	\$.75	\$.69	\$.59
210286CH	B2A (NE-51H)	2	T3 1/4 miniature bayonet	65-120	\$.69	\$.59	\$.49	\$.39
210294CH	B7A (NE-45)	3	T4 1/2 candelabra screw	65-120	3.99	3.49	2.99	2.49
210307CH	B9A (NE-48)	4	T4 1/2 D.C. bayonet	65-120	2.99	2.49	1.99	1.79
210315CH	C2A (NE-2H)	1	Wire terminal	65-120	*	\$.39	\$.35	\$.26



## Aluminum Radial-Lead Electrolytic Capacitors (±20%)

Leakage Current (20°C)	After 1 min.	0.03CV or 4µA, whichever is greater
	After 2 min.	0.01CV or 3µA, whichever is greater

† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SG; Panasonic: KA/KS/SU



**Quantity SAVE** **SALE**

**85°C – General Purpose**

**NEW**

\* Prepackaged: order in increments of 10, 100 or 500

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
330464CH	RA0.47/50	0.47	50V	5 x 11 x 2.0	*	\$0.045	\$0.039	\$0.03
330536CH	RA.47/160	0.47	160V	5 x 11 x 2.0	*	.151	.103	.07
330430CH	RA1/25	1	25V	5 x 11 x 2.0	*	.045	.039	.03
94160CH	5R1/50	1	50V	4 x 5 x 1.5	*	.12	.08	.05
29832CH	R1/50	1	50V	5 x 11 x 2	*	.063	.053	.042
330544CH	RA1/160	1	160V	6 x 11 x 2.5	*	.047	.045	.04
330587CH	RA1/250	1	250V	6 x 11 x 2.5	*	.065	.06	.053
330405CH	RA2.2/16	2.2	16V	5 x 11 x 2.0	*	.045	.039	.03
93730CH	R2.2/50	2.2	50V	5 x 11 x 2	*	.038	.033	.026
199021CH	R2.2J/100	2.2	100V	5 x 11 x 2	*	.038	.032	.024
135184CH	R3.3/50	3.3	50V	5 x 11 x 2	*	.05	.04	.025
330413CH	RA4.7/16	4.7	16V	5 x 11 x 2.0	*	.045	.04	.03
330448CH	RA4.7/25	4.7	25V	5 x 11 x 2.0	*	.045	.039	.03
31001CH	R4.7/50	4.7	50V	6 x 11 x 2	*	.042	.037	.029
330595CH	RA4.7/250	4.7	250V	8 x 11 x 3.5	*	.112	.094	.083
198838CH	R10J/16	10	16V	5 x 11 x 2	*	.045	.03	.025
94211CH	5R10/25	10	25V	4 x 5 x 1.5	*	.13	.08	.05
94220CH	5R10/35	10	35V	5 x 5 x 2	*	.09	.07	.065
94369CH	7R10/35	10	35V	5 x 7 x 2	*	.11	.06	.04
29892CH	R10/50	10	50V	5 x 11 x 2	*	.067	.055	.045
330481CH	RA10/63	10	63V	5 x 11 x 2.0	*	.056	.047	.038
199048CH	R10J/100	10	100V	6 x 11 x 2.5	*	.07	.06	.05
330552CH	RA10/160	10	160V	8 x 11 x 3.5	*	.122	.114	.093
330608CH	RA10/250	10	250V	10 x 15 x 5.0	*	.16	.133	.114
330632CH	RA10/350	10	350V	10 x 20 x 5.0	.25	.226	.20	.171
330641CH	RA10/450	10	450V	13 x 21 x 5.0	.46	.414	.333	.241
198846CH	R22J/16	22	16V	5 x 11 x 2	*	.04	.035	.026
189918CH	R22J/25	22	25V	5 x 11 x 2	*	.039	.033	.025
198942CH	R22J/35	22	35V	5 x 11 x 2	*	.029	.026	.023
93738CH	R22/50	22	50V	5 x 11 x 2	*	.062	.056	.039
199056CH	R22J/100	22	100V	6 x 11 x 2.5	*	.15	.09	.06
330659CH	RA22/450	22	450V	16 x 26 x 7.5	.58	.517	.456	.39
198854CH	R33J/16	33	16V	5 x 11 x 2	*	.034	.029	.022
198926CH	R33J/25	33	25V	5 x 11 x 2	*	.037	.032	.024
93746CH	R33/50	33	50V	6 x 11 x 2.5	*	.055	.05	.045
199064CH	R33J/100	33	100V	8 x 11 x 3.5	*	.089	.08	.072
330667CH	RA33/450	33	450V	16 x 30 x 7.5	1.09	.97	.86	.62
135302CH	R47/10	47	10V	5 x 12 x 2	*	.04	.03	.025
198862CH	R47J/16	47	16V	5 x 11 x 2	*	.04	.032	.023
93754CH	R47/25	47	25V	5 x 11 x 2	*	.053	.037	.029
198951CH	R47J/35	47	35V	5 x 11 x 2	*	.05	.04	.03
31115CH	R47/50	47	50V	6 x 11 x 2.5	*	.067	.056	.05
330499CH	RA47/63	47	63V	8 x 12 x 3.5	*	.089	.075	.064
199072CH	RA47/100	47	100V	10 x 12 x 5	*	.15	.13	.10
330561CH	RA47/160S	47	160V	10 x 20 x 5.0	.34	.31	.276	.238
330616CH	RA47/250	47	250V	13 x 25 x 5.0	.57	.508	.447	.388
330675CH	RA47/450	47	450V	18 x 30 x 7.5	1.75	1.21	.92	.70
207812CH	R100/10	100	10V	5 x 11 x 2	*	.08	.06	.05
330421CH	RA100/16	100	16V	5 x 11 x 2.0	*	.056	.055	.048

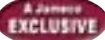
Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
94289CH	5R100/16	100	16V	6 x 5 x 2.5	*	\$1.15	\$1.12	\$0.9
94431CH	7R100/16	100	16V	6 x 7 x 2.5	*	.09	.081	.069
93762CH	R100/25	100	25V	6 x 11 x 2.5	*	.078	.056	.039
198969CH	R100J/35	100	35V	6 x 11 x 2.5	*	.07	.06	.05
29963CH	R100/50	100	50V	8 x 11 x 3.5	*	.078	.067	.056
330501CH	RA100/63	100	63V	8 x 14 x 3.5	*	.122	.114	.095
330528CH	RA100/100	100	100V	10 x 20 x 5.0	.33	.282	.266	.19
330579CH	RA100/160S	100	160V	13 x 25 x 5.0	.56	.498	.437	.371
330624CH	RA100/250	100	250V	16 x 30 x 7.5	1.25	1.09	.95	.68
330683CH	RA100/450	100	450V	22 x 42 x 10.5	3.39	3.03	2.08	1.56
135124CH	7R220/10	220	10V	6 x 7 x 2.5	.26	.20	.15	.105
198871CH	R220J/16	220	16V	6 x 11 x 2.5	*	.11	.07	.06
30497CH	R220/25	220	25V	8 x 11 x 3.5	*	.08	.06	.05
93771CH	R220/35	220	35V	8 x 12 x 5	*	.09	.08	.07
93779CH	R220/50	220	50V	10 x 15 x 5	*	.167	.133	.10
330510CH	RA220/63	220	63V	10 x 17 x 5.0	.27	.235	.219	.181
199081CH	R220J/100	220	100V	12 x 25 x 5	.52	.47	.37	.28
198890CH	R330J/16	330	16V	8 x 11 x 3.5	*	.14	.07	.06
93797CH	R330/25	330	25V	8 x 12 x 3.5	*	.144	.10	.089
198977CH	R330J/35	330	35V	10 x 12 x 5	.20	.18	.144	.108
330472CH	RA330/50	330	50V	10 x 20 x 5.0	.26	.235	.209	.181
199099CH	R330J/100	330	100V	12 x 25 x 5	.60	.54	.43	.32
330384CH	RA470/10	470	10V	8 x 11 x 3.5	*	.103	.083	.067
93810CH	R470/16	470	16V	8 x 11 x 3.5	*	.11	.103	.099
31182CH	R470/25	470	25V	8 x 14 x 5	*	.133	.111	.10
93818CH	R470/35	470	35V	10 x 16 x 5	*	.17	.15	.13
93826CH	R470/50	470	50V	10 x 20 x 5	.32	.31	.21	.144
199101CH	R470J/100	470	100V	16 x 25 x 7.5	1.15	.78	.69	.58
330456CH	RA680/25S	680	25V	8 x 16 x 3.5	.97	.87	.78	.70
330392CH	RA1000/10	1000	10V	8 x 14 x 3.5	*	.132	.114	.091
30016CH	R1000/16	1000	16V	10 x 16 x 5	*	.16	.14	.12
93834CH	R1000/25	1000	25V	10 x 20 x 5	*	.25	.23	.18
286045CH	Q399L	1000	35V	12 x 20 x 5	.50	.46	.41	.33
93842CH	R1000/50	1000	50V	13 x 25 x 5	.58	.51	.455	.38
302578CH	S1000/50	1000	50V	18 x 21 x 7.5	.45	.40	.36	.31
199110CH	R1000J/100	1000	100V	18 x 40 x 7.5	2.29	2.06	1.65	1.24
133146CH	R2200/16	2200	16V	10 x 20 x 5	.36	.31	.267	.244
30534CH	R2200/25	2200	25V	13 x 21 x 5	.61	.545	.444	.333
198985CH	R2200J/35	2200	35V	16 x 25 x 7.5	1.39	1.25	.99	.74
198897CH	R3300J/16	3300	16V	12 x 25 x 5	.49	.39	.33	.29
30892CH	R3300/25	3300	25V	13 x 29 x 5	.79	.72	.545	.48
198993CH	R3300J/35	3300	35V	16 x 35 x 7.5	.87	.77	.67	.57
199013CH	R3300J/50	3300	50V	18 x 35 x 7.5	2.15	1.94	1.55	1.16
198900CH	RA700J/16	4700	16V	16 x 25 x 7.5	.79	.71	.57	.43
93851CH	R4700/25	4700	25V	16 x 31 x 7.5	1.10	.94	.78	.61
199005CH	R4700J/35	4700	35V	18 x 35 x 7.5	1.35	1.25	1.15	1.05
163302CH	R4700/50	4700	50V	22 x 42 x 10	2.25	1.99	1.67	1.45
31511CH	R6800/16	6800	16V	16 x 26 x 7.5	1.10	.87	.76	.66
198934CH	R6800J/25	6800	25V	18 x 35 x 7.5	1.59	1.43	1.14	.86

## 105°C – HT Type General Purpose

158481CH	R0.47B100	0.47	100V	5 x 11 x 2	*	\$0.05	\$0.04	\$0.03
330771CH	RB1/50	1	50V	5 x 11 x 2.0	*	.056	.046	.036
158490CH	R1B100	1	100V	5 x 11 x 2	*	.06	.05	.04
330835CH	RB1/160	1	160V	5 x 11 x 2.0	*	.078	.067	.055
330780CH	RB4.7/50	4.7	50V	5 x 11 x 2.0	*	.056	.046	.036
330851CH	RB4.7/250	4.7	250V	8 x 11 x 3.5	*	.14	.122	.105
330691CH	RB10/16	10	16V	5 x 11 x 2.0	*	.039	.034	.029
330798CH	RB10/50	10	50V	5 x 11 x 2.0	*	.056	.046	.036

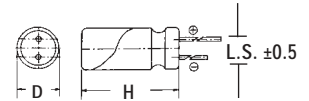
158529CH	R10B100	10	100V	6 x 11 x 2.5	*	\$0.08	\$0.07	\$0.055
330843CH	RB10/160	10	160V	8 x 11 x 3.5	*	.149	.132	.114
330860CH	RB10/250	10	250V	10 x 17 x 5.0	.22	.207	.181	.162
207870CH	R22B/25	22	25V	5 x 11 x 2	*	.047	.037	.028
158326CH	R22B35	22	35V	5 x 11 x 2	*	.07	.05	.03
330801CH	RB22/50	22	50V	6 x 11 x 2.5	*	.067	.055	.044
158246CH	R47B25	47	25V	5 x 11 x 2	*	.06	.048	.036
330819CH	RB47/50	47	50V	6 x 11 x 2.5	*	.102	.08	.057

\* Capacitor dimensions and styles may vary



## Aluminum Radial-Lead Electrolytic Capacitors (±20%)

Leakage Current (20°C)	After 1 min.	0.03CV or 4µA, whichever is greater
	After 2 min.	0.01CV or 3µA, whichever is greater



† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SG; Panasonic: KA/KS/SU

**NEW**

**Quantity SAVE**

### 105°C – HT Type General Purpose (Continued)

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
330704CH	RB100/16	100	16V	6 x 11 x 2.5	*	\$ .067	\$ .055	\$ .044
330739CH	RB100/25	100	25V	6 x 11 x 2.5	*	.067	.057	.048
330747CH	RB100/35	100	35V	8 x 11 x 3.5	*	.084	.08	.074
158393CH	R100B50	100	50V	8 x 11 x 3.5	*	.09	.07	.055
330827CH	RB100/63	100	63V	10 x 13 x 5.0	*	.149	.132	.114
207845CH	R180/16	180	16V	6 x 15 x 2.5	*	.034	.031	.028
311757CH	R220B10	220	10V	6 x 11 x 2.5	.25	.191	.143	.102
158262CH	R220B25	220	25V	8 x 11 x 3.5	*	.12	.09	.07
330755CH	RB220/35S	220	35V	8 x 16 x 3.5	*	.149	.132	.114

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
158406CH	R220B50	220	50V	10 x 12 x 5	\$ .34	\$ .306	\$ .277	\$ .264
330712CH	RB330/16	330	16V	8 x 11 x 3.5	*	.102	.08	.057
158203CH	R470B16	470	16V	8 x 11 x 3.5	*	.12	.10	.09
158289CH	R470B25	470	25V	10 x 12 x 5	*	.15	.12	.10
330763CH	RB470/35	470	35V	10 x 15 x 5.0	.28	.244	.219	.152
158465CH	R470B63	470	63V	12 x 20 x 5	.30	.27	.24	.21
158297CH	R1000B25	1000	25V	10 x 20 x 5	.35	.29	.25	.19
330721CH	RB1000/16	1000	25V	10 x 20 x 5.0	.23	.216	.19	.171
158377CH	R1000B35	1000	35V	10 x 20 x 5	.49	.45	.40	.35
158431CH	R2200B50	2200	50V	16 x 35 x 7.5	.99	.89	.71	.53

### Other Manufacturers — Limited Great Deals\*

#### 85°C – General Purpose

29831CH	R1/50	1	50V	5 x 11 x 2	*	\$ .057	\$ .048	\$ .038
93729CH	R2.2/50	2.2	50V	5 x 11 x 2	*	.034	.03	.023
135183CH	R3.3/50	3.3	50V	5 x 11 x 2	*	.045	.038	.029
31000CH	R4.7/50	4.7	50V	5 x 11 x 2	*	.038	.033	.026
29891CH	R10/50	10	50V	5 x 11 x 2	*	.06	.05	.04
93737CH	R22/50	22	50V	5 x 11 x 2	*	.06	.05	.035
93745CH	R33/50	33	50V	5 x 11 x 2	*	.05	.045	.04
135301CH	R47/10	47	10V	5 x 12 x 2	*	.036	.031	.023
93753CH	R47/25	47	25V	5 x 11 x 2	*	.048	.033	.026
31114CH	R47/50	47	50V	6 x 11 x 2.5	*	.06	.05	.045
207811CH	R100/10	100	10V	5 x 11 x 2	*	.072	.054	.045
93761CH	R100/25	100	25V	6 x 11 x 2.5	*	.07	.05	.035
29962CH	R100/50	100	50V	8 x 11 x 3.5	*	.07	.06	.05
30496CH	R220/25	220	25V	8 x 11 x 3.5	*	.08	.06	.05
93770CH	R220/35	220	35V	10 x 12 x 5	*	.09	.08	.07

\* Capacitor dimensions and styles may vary.

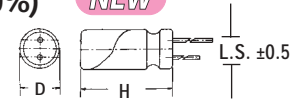
93778CH	R220/50	220	50V	10 x 12 x 5	*	\$ .15	\$ .12	\$ .09
198889CH	R330J/16	330	16V	8 x 11 x 3.5	*	.126	.076	.057
93796CH	R330/25	330	25V	10 x 12 x 5	*	.126	.107	.08
93809CH	R470/16	470	16V	8 x 11 x 3.5	*	.099	.095	.089
31181CH	R470/25	470	25V	10 x 12 x 5	*	.12	.10	.09
93817CH	R470/35	470	35V	10 x 16 x 5	*	.153	.135	.117
93825CH	R470/50	470	50V	12 x 20 x 5	.29	.27	.19	.13
30015CH	R1000/16	1000	16V	10 x 16 x 5	*	.178	.156	.133
93833CH	R1000/25	1000	25V	10 x 20 x 5	*	.278	.256	.20
93841CH	R1000/50	1000	50V	12 x 25 x 5	.52	.46	.41	.34
133145CH	R2200/16	2200	16V	12 x 20 x 5	.32	.28	.24	.22
30533CH	R2200/25	2200	25V	12 x 25 x 5	.55	.49	.40	.30
30891CH	R3300/25	3300	25V	16 x 25 x 7.5	.71	.65	.49	.43
93850CH	R4700/25	4700	25V	16 x 31 x 7.5	.99	.85	.70	.53
163301CH	R4700/50	4700	50V	22 x 42 x 10	1.99	1.79	1.50	1.31
31510CH	R6800/16	6800	16V	16 x 35 x 7.5	1.09	.98	.78	.59



## Aluminum Radial-Lead Non-Polarized Electrolytic Capacitors (±20%)

### 85°C – General purpose

Leakage Current (20°C)	After 1 min.	0.03CV or 4µA, whichever is greater
	After 2 min.	0.01CV or 3µA, whichever is greater



† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SG; Panasonic: KA/KS/SU

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
330931CH	RN0.47/50	0.47	50V	5 x 11 x 2	\$ .28	\$ .252	\$ .19	\$ .152
330940CH	RN1/50	1	50V	5 x 11 x 2	*	.159	.085	.076
331053CH	RN1/100	1	100V	5 x 11 x 2	*	.169	.086	.076
330958CH	RN2.2/50	2.2	50V	5 x 11 x 2	*	.159	.085	.076
331029CH	RN2.2/63	2.2	63V	5 x 11 x 2	.28	.243	.219	.197
331061CH	RN2.2/100	2.2	100V	5 x 11 x 2	*	.169	.086	.076
330966CH	RN3.3/50	3.3	50V	5 x 11 x 2	*	.171	.094	.086
331070CH	RN3.3/100	3.3	100V	5 x 11 x 2	*	.189	.095	.086
330907CH	RN4.7/25	4.7	25V	5 x 11 x 2	.28	.243	.219	.197
330974CH	RN4.7/50	4.7	50V	5 x 11 x 2	*	.171	.094	.086
331088CH	RN4.7/100	4.7	100V	6 x 11 x 2.5	*	.188	.095	.086
330915CH	RN10/25	10	25V	5 x 11 x 2	.28	.243	.219	.197

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H	Pricing			
					1	10	100	500
330982CH	RN10/50	10	50V	8 x 11 x 3.5	\$ .22	\$ .198	\$ .114	\$ .105
331096CH	RN10/100	10	100V	8 x 11 x 3.5	.22	.198	.114	.105
330878CH	RN22/16	22	16V	5 x 11 x 2	.31	.279	.219	.181
330923CH	RN22/25	22	25V	5 x 11 x 2	.32	.288	.259	.233
330991CH	RN22/50	22	50V	6 x 11 x 2.5	.33	.31	.171	.162
331037CH	RN22/63	22	63V	8 x 11 x 3.5	.45	.409	.368	.331
331109CH	RN22/100	22	100V	10 x 15 x 5.0	.33	.297	.171	.162
330886CH	RN47/16	47	16V	6 x 11 x 2.5	.33	.297	.267	.241
331002CH	RN47/50	47	50V	8 x 11 x 3.5	.46	.414	.314	.285
331117CH	RN47/100	47	100V	10 x 20 x 5.0	.46	.414	.314	.285
330894CH	RN100/16	100	16V	8 x 11 x 3.5	.45	.405	.365	.328
331011CH	RN100/50	100	50V	10 x 17 x 5.0	.69	.621	.467	.428
331045CH	RN220/63	220	63V	5 x 11 x 2	.69	.62	.465	.428

### 85°C – High-Frequency

Part No.	Mfr. Cross Ref. No.	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
331125CH	RN1/25S	1	25V	8 x 11 x 3.5	\$ .37	\$ .348	\$ .186	\$ .166
331205CH	RN1/50S	1	50V	8 x 11 x 3.5	.37	.348	.186	.166
331133CH	RN2.2/25S	2.2	25V	8 x 11 x 3.5	.37	.348	.186	.166
331213CH	RN2.2/50S	2.2	50V	8 x 11 x 3.5	.37	.348	.186	.166
331141CH	RN3.3/25S	3.3	25V	8 x 11 x 3.5	.37	.348	.186	.166
331221CH	RN3.3/50S	3.3	50V	8 x 11 x 3.5	.37	.348	.186	.166
331150CH	RN4.7/25S	4.7	25V	8 x 11 x 3.5	.37	.348	.186	.166
331230CH	RN4.7/50S	4.7	50V	8 x 11 x 3.5	.37	.348	.186	.166

Part No.	Mfr. Cross Ref. No.	Value (µF)	Voltage	Size (mm) D x H	Pricing			
					1	10	100	500
331168CH	RN5.6/25S	5.6	25V	8 x 11 x 3.5	\$ .37	\$ .348	\$ .186	\$ .166
331248CH	RN5.6/50S	5.6	50V	8 x 14 x 3.5	.45	.423	.226	.202
331176CH	RN6.8/25S	6.8	25V	8 x 11 x 3.5	.37	.348	.186	.166
331256CH	RN6.8/50S	6.8	50V	8 x 14 x 3.5	.45	.423	.226	.202
331184CH	RN8.2/25S	8.2	25V	8 x 14 x 3.5	.45	.423	.226	.202
331264CH	RN8.2/50S	8.2	50V	10 x 15 x 5.0	.58	.548	.293	.262
331192CH	RN10/25S	10	25V	8 x 14 x 3.5	.45	.423	.226	.202
331272CH	RN10/50S	10	50V	10 x 15 x 5.0	.58	.548	.293	.262



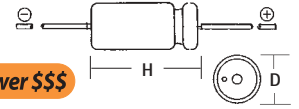
## Aluminum Axial-Lead Electrolytic Capacitors

General purpose 85°C maximum

Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or 2µA, whichever is greater

Quantity SAVE

Lower \$\$\$



† CROSS REFERENCES: Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU

\* Prepackaged: order in increments of 10, 100 or 500

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) DxH	Pricing			
					1	10	100	500
10867CH	A1/50	1	50V	5 x 13	*	\$ .15	\$ .115	\$ .09
93570CH	A2.2/50	2.2	50V	6 x 13	*	.11	.10	.09
199419CH	A3.3J/50	3.3	50V	6 x 12	*	.197	.143	.105
11077CH	A4.7/50	4.7	50V	6 x 13	*	.18	.13	.11
331301CH	AB4.7/63	4.7	63V	6 x 12	.23	.197	.143	.105
199427CH	A6.8J/50	6.8	50V	6 x 12	*	.197	.143	.105
199144CH	A10J/16	10	16V	6 x 12	*	.20	.14	.10
199259CH	A10J/25	10	25V	5 x 12	*	.174	.15	.139
93578CH	A10/35	10	35V	6 x 13	*	.133	.107	.08
10883CH	A10/50	10	50V	6 x 12	*	.167	.133	.089
331310CH	AB10/63	10	63V	6 x 12	*	.15	.128	.105
331424CH	AB10/450	10	450V	13 x 25	1.25	1.04	.94	.86
199152CH	A22J/16	22	16V	6 x 12	*	.197	.143	.105
199267CH	A22J/25	22	25V	6 x 12	*	.197	.141	.105
10998CH	A22/50	22	50V	6 x 12	*	.19	.14	.10
331328CH	AB22/63	22	63V	8 x 12	.22	.218	.173	.154
331387CH	AB22/160	22	160V	10 x 17	.80	.68	.62	.56
331432CH	AB22/450	22	450V	16 x 26	1.99	1.66	1.51	1.37
199161CH	A33J/16	33	16V	6 x 13	*	.197	.143	.105
199347CH	A33J/35	33	35V	6.3 x 16	*	.197	.143	.105
199435CH	A33J/50	33	50V	6.3 x 16	*	.197	.143	.105
199179CH	A47J/16	47	16V	6.3 x 12	*	.134	.114	.085
135320CH	A47/25	47	25V	8 x 16	*	.15	.14	.09
199355CH	A47J/35	47	35V	6.3 x 16	*	.197	.143	.105
11106CH	A47/50	47	50V	8 x 16	*	.19	.14	.10
331336CH	AB47/63	47	63V	8 x 16	*	.171	.16	.13
331361CH	AB47/100	47	100V	10 x 17	.34	.273	.247	.19
331395CH	AB47/160	47	160V	13 x 21	.75	.57	.368	.331
331441CH	AB47/450	47	450V	16 x 30	3.25	2.74	2.49	2.26
199443CH	A68J/50	68	50V	8 x 15	.25	.225	.18	.135
199187CH	A100J/16	100	16V	6.3 x 16	.27	.22	.18	.14
199283CH	A100J/25	100	25V	8 x 16	.25	.20	.18	.15
93552CH	A100/35	100	35V	8 x 16	*	.23	.19	.145
10912CH	A100/50	100	50V	8 x 20	*	.245	.20	.155
331344CH	AB100/63	100	63V	10 x 17	.37	.291	.257	.219
331379CH	AB100/100	100	100V	10 x 20	.85	.73	.57	.47

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) DxH	Pricing			
					1	10	100	500
331408CH	AB100/160	100	160V	16 x 26	\$1.79	\$1.53	\$1.39	\$1.26
331416CH	AB100/250	100	250V	16 x 30	2.45	2.09	1.93	1.80
331299CH	AB150/50	150	50V	10 x 17	.96	.86	.69	.65
199195CH	A220J16	220	16V	8 x 16	*	.235	.20	.15
199291CH	A220J/25	220	25V	8 x 16	.25	.21	.18	.12
199363CH	A220J/35	220	35V	10 x 17	.34	.273	.247	.185
11018CH	A220/50	220	50V	10 x 17	.35	.29	.25	.192
331352CH	AB220/63	220	63V	10 x 20	.55	.461	.409	.342
199208CH	A330J/16	330	16V	8 x 16	*	.235	.20	.15
199371CH	A330J/35	330	35V	10 x 17	.44	.367	.333	.25
199451CH	A330J/50	330	50V	13 x 22	.50	.432	.399	.299
199216CH	A470J/16	470	16V	8 x 16	.34	.273	.245	.184
199312CH	A470J/25	470	25V	10 x 17	.44	.367	.333	.235
199380CH	A470J/35	470	35V	10 x 21	.50	.404	.371	.278
11122CH	A470/50	470	50V	13 x 21	.59	.49	.42	.34
199460CH	A680J/50	680	50V	16 x 25	.85	.73	.57	.428
331281CH	AB1000/10	1000	10V	10 x 17	.51	.414	.38	.304
93632CH	A1000/16	1000	16V	10 x 20	.51	.46	.42	.40
10955CH	A1000/25	1000	25V	10 x 20	.66	.54	.49	.38
93650CH	A1000/35	1000	35V	13 x 25	.94	.83	.655	.545
147257CH	A1000/50	1000	50V	16 x 25	.88	.77	.66	.545
213356CH	A1000/50-1	1000	50V	22 x 41	.69	.59	.55	.49
11034CH	A2200/16	2200	16V	13 x 21	.88	.79	.72	.655
199321CH	A2200J/25	2200	25V	16 x 28	1.09	.90	.78	.59
93657CH	A2200/35	2200	35V	16 x 30	1.25	1.10	.99	.85
199478CH	A2200J/50	2200	50V	18 x 42	2.29	1.93	1.79	1.65
93666CH	A3300/25	3300	25V	16 x 32	1.10	.99	.88	.77
199398CH	A3300J/35	3300	35V	18 x 37	3.39	2.93	2.29	1.72
199486CH	A3300J/50	3300	50V	22 x 43	4.25	3.56	2.94	2.21
199232CH	A4700J/16	4700	16V	16 x 30	1.45	1.30	1.17	1.06
93674CH	A4700/25	4700	25V	16 x 30	1.69	1.49	1.29	.99
199401CH	A4700J/35	4700	35V	18 x 40	2.79	2.51	2.01	1.51
158810CH	A4700A50	4700	50V	25 x 43	2.79	2.29	2.09	1.79
199241CH	A6800J/16	6800	16V	16 x 33	2.59	2.23	1.75	1.40
199339CH	A6800J/25	6800	25V	18 x 40	2.35	1.81	1.59	1.27
93682CH	A10000/16	10000	16V	16 x 33	2.49	2.28	1.83	1.32

## Other Manufacturers — Limited Great Deals\*

10866CH	A1/50	1	50V	5 x 13	*	\$ .135	\$ .104	\$ .078
93569CH	A2.2/50	2.2	50V	6 x 13	*	.125	.106	.08
11076CH	A4.7/50	4.7	50V	6 x 13	*	.162	.117	.099
93577CH	A10/35	10	35V	6 x 13	*	.155	.134	.119
10882CH	A10/50	10	50V	6 x 12	*	.15	.12	.08
10997CH	A22/50	22	50V	6 x 12	*	.17	.126	.09
135319CH	A47/25	47	25V	8 x 16	*	.135	.115	.086
11105CH	A47/50	47	50V	8 x 16	*	.17	.136	.102
93551CH	A100/35	100	35V	8 x 16	*	.21	.17	.13
10911CH	A100/50	100	50V	8 x 20	*	.22	.176	.132

11017CH	A220/50	220	50V	10 x 20	\$ .39	\$ .32	\$ .256	\$ .192
11121CH	A470/50	470	50V	13 x 31	.53	.44	.38	.31
93631CH	A1000/16	1000	16V	13 x 27	.46	.41	.38	.36
10954CH	A1000/25	1000	25V	13 x 31	.59	.49	.44	.34
93649CH	A1000/35	1000	35V	13 x 26	.85	.75	.59	.49
147256CH	A1000/50	1000	50V	16 x 31	.79	.71	.57	.43
11033CH	A2200/16	2200	16V	16 x 40	.79	.71	.65	.59
93665CH	A3300/25	3300	25V	16 x 32	.99	.89	.79	.69
93673CH	A4700/25	4700	25V	22 x 39	1.55	1.34	1.16	.89
93681CH	A10000/16	10000	16V	22 x 51	2.25	2.05	1.85	1.49

\* Capacitor dimensions and styles may vary

## Aluminum Axial-Lead Non-Polarized Electrolytic Capacitors

85°C — General purpose

NEW

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) DxH	Pricing			
					1	10	100	500
331521CH	AN1/50	1	50V	6 x 16	\$ .35	\$ .342	\$ .266	\$ .209
331635CH	AN1/100	1	100V	6 x 16	.44	.428	.314	.247
331539CH	AN2.2/50	2.2	50V	6 x 16	.40	.38	.295	.228
331547CH	AN3.3/50	3.3	50V	6 x 16	.42	.399	.314	.238
331555CH	AN4.7/50	4.7	50V	6 x 16	.45	.428	.333	.266
331643CH	AN4.7/100	4.7	100V	6 x 16	.69	.66	.504	.38
331483CH	AN10/25	10	25V	6 x 16	.39	.37	.356	.284
331563CH	AN10/50	10	50V	6 x 16	.57	.542	.418	.333
331651CH	AN10/100	10	100V	8 x 16	.73	.69	.532	.504
331459CH	AN22/16	22	16V	6 x 16	.39	.351	.316	.284
331491CH	AN22/25	22	25V	6 x 16	.43	.387	.348	.313
331571CH	AN22/50	22	50V	6 x 16	.75	.71	.545	.437
331627CH	AN22/63	22	63V	8 x 16	.75	.71	.55	.437

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) DxH	Pricing			
					1	10	100	500
331660CH	AN22/100	22	100V	10 x 18	\$ .86	\$ .77	\$ .69	\$ .62
331580CH	AN33/50	33	50V	8 x 16	.69	.68	.67	.51
331678CH	AN33/100	33	100V	10 x 20	.87	.83	.67	.51
331504CH	AN47/25	47	25V	6 x 16	.51	.459	.413	.372
331598CH	AN47/50	47	50V	8 x 16	.85	.80	.74	.59
331686CH	AN47/100	47	100V	10 x 21	1.39	1.25	1.13	1.01
331467CH	AN100/16	100	16V	8 x 16	.53	.477	.429	.386
331512CH	AN100/25	100	25V	8 x 20	.57	.513	.462	.416
331601CH	AN100/50	100	50V	10 x 18	.91	.87	.83	.79
331694CH	AN100/100	100	100V	13 x 25	2.35	2.12	1.91	1.72
331475CH	AN220/16	220	16V	8 x 20	.75	.68	.61	.55
331619CH	AN220/50	220	50V	13 x 25	1.39	1.32	.99	.79

## Snap-Mount Large-Can Aluminum Electrolytic Capacitors (±20%)

- Designed as an input filter for switched mode power supply; standard 10mm (0.40") snap-in spacing
- Operating temperature range: (SNA) -40°C to +85°C; (SNB) -40°C to +105°C
- Can-Top safety vent

**NEW**

**Quantity SAVE**

**Snap-Ins!**



† CROSS REFERENCES: Aero M: LP/LPR; Elna: LP3/LP4; Illinois Capacitor: LBA/LPR; Mallory: LPX; Marcon: CEAWF; Nichicon: LLK/LLQ; Panasonic: TS-UP/TS-U; Phillips (MEPCO): 3487/3489; Rubycon: RSP; Sprague: 80D/82D; United Chemicon: SMG(VN)/SMH(VN)

115422CH

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing		
					1	10	100
331838CH	SNA68/450	68	450V	22 x 30	\$2.55	\$2.19	\$1.26
331926CH	SNB100/200	100	200V	30 x 40	1.95	1.50	.81
331846CH	SNA120/450	120	450V	22 x 40	3.09	2.33	1.45
331766CH	SNA220/200	220	200V	22 x 27	1.89	1.42	.89
331934CH	SNB220/200	220	200V	22 x 27	2.19	1.81	1.25
331791CH	SNA220/250	220	250V	22 x 36	2.19	1.65	1.02
332013CH	SNB220/250	220	250V	22 x 36	1.85	1.75	1.15
203212CH	SN220/400/2	220	400V	22 x 51	4.95	4.17	2.94
331854CH	SNA220/450	220	450V	25 x 48	4.39	3.31	2.06
203238CH	SN270/350	270	350V	25 x 40	4.15	3.53	<b>(2.65)</b>
331774CH	SNA330/200	330	200V	25 x 35	2.55	1.49	1.29
331942CH	SNB330/200	330	200V	25 x 30	1.75	1.66	1.39
331803CH	SNA330/250	330	250V	22 x 36	1.99	1.83	1.21
332021CH	SNB330/250	330	250V	22 x 36	2.19	2.10	1.35
203246CH	SN330/400	330	400V	30 x 46	<del>\$4.99</del> 4.69	4.21	<b>(2.92)</b>
331862CH	SNA330/450	330	450V	35 x 48	5.99	4.52	2.80
331951CH	SNB470/200	470	200V	22 x 41	2.39	2.19	1.26
115378CH	SN470/200	470	200V	30 x 41	2.49	2.25	1.99
331811CH	SNA470/250	470	250V	25 x 40	3.05	2.30	1.43
332030CH	SNB470/250	470	250V	25 x 40	2.35	2.15	1.61
203255CH	SN470/400/4	470	400V	35 x 41	7.75	6.32	4.94
203263CH	SN470/400/5	470	450V	35 x 51	8.25	7.60	5.69
155890CH	SN560/200	560	200V	23 x 41	3.19	2.69	1.90
331782CH	SNA560/200	560	200V	25 x 36	2.99	2.12	1.22

Part No.	Mfr. Cross Ref. No.†	Value (µF)	Voltage	Size (mm) D x H x L.S.	Pricing		
					1	10	100
331969CH	SNB560/200	560	200V	25 x 36	\$3.35	\$2.39	\$1.36
332048CH	SNB560/250	560	250V	30 x 40	2.95	2.80	1.81
203271CH	SN680/200/2	680	200V	35 x 25	2.59	2.33	1.98
331977CH	SNB680/200	680	200V	25 x 40	3.05	2.69	1.55
331820CH	SNA680/250	680	250V	25 x 48	3.79	2.86	1.77
332056CH	SNB680/250	680	250V	25 x 48	3.89	3.53	2.03
331985CH	SNB820/200	820	200V	25 x 48	3.15	2.78	1.73
332064CH	SNB820/250	820	250V	30 x 48	4.35	4.03	2.50
331993CH	SNB1000/200	1,000	200V	30 x 40	4.29	3.23	2.00
332072CH	SNB1000/250	1,000	250V	35 x 50	4.39	4.37	2.71
332005CH	SNB1500/200	1,500	200V	35 x 48	5.45	4.24	2.76
331871CH	SNB2200/50	2,200	50V	22 x 26	3.19	2.26	1.30
331889CH	SNB3300/50	3,300	50V	25 x 23	2.45	2.01	1.17
331740CH	SNA3300/80	3,300	80V	22 x 48	2.35	2.23	1.44
331897CH	SNB4700/50	4,700	50V	25 x 30	2.19	1.99	1.79
115422CH	SN4700/50	4,700	50V	30 x 41	3.19	2.55	<b>(1.91)</b>
331723CH	SNA4700/63	4,700	63V	25 x 33	3.75	3.06	2.54
331900CH	SNB6800/50	6,800	50V	25 x 40	2.69	2.40	1.68
115432CH	SNB8000/50	6,800	50V	30 x 51	3.15	2.68	2.01
331758CH	SNA8200/80	8,200	80V	35 x 53	6.35	4.76	2.95
331707CH	SNA10000/16	10,000	16V	22 x 30	3.29	1.90	1.34
331918CH	SNB10000/50	10,000	50V	25 x 41	4.65	3.51	2.18
157737CH	SN10000/50	10,000	50V	35 x 40	4.95	4.10	3.99
331731CH	SNA10000/63	10,000	63V	35 x 40	5.49	4.45	3.94
331715CH	SNA15000/25	15,000	25V	25 x 40	2.65	2.35	1.78

### Other Manufacturers — Limited Great Deals\*

203211CH	SN220/400/2	220	400V	22 x 51	<del>\$4.45</del> \$4.15	\$3.53	<b>(2.65)</b>
115377CH	SN470/200	470	200V	30 x 41	2.25	2.03	1.79
203254CH	SN470/400/4	470	400V	35 x 41	<del>\$6.99</del> 6.35	5.40	<b>(4.05)</b>

\* Capacitor dimensions and styles may vary

## Memory Back-Up Capacitors

- Applications:**
- Memory back-up of remote controllers
  - Back-up on CMOS microcomputers, static RAM, DTSs (digital tuning systems)

**Features:**

- Small size vs. capacitance
- Voltage: 5.5VDC
- Excellent voltage holding characteristics for low back-up currents

**Quantity SAVE**



Part No.	Mfr. Cross Ref. No.	Value (Farad)	1	10	100
142922CH	MBC.047/5.5	.047	\$1.49	\$1.34	\$ .99
142949CH	MBC.22/5.5	.22	2.09	1.79	1.41
143010CH	MBC.47/5.5	.47	3.49	3.15	2.59

### Other Manufacturers — Limited Great Deals\*

142957CH	MBC1.0/5.5	1.0	\$4.29	\$3.85	\$3.49
227811CH	S5R5V105	1.0	4.49	3.82	<b>(2.86)</b>

## Dipped Silver Mica Capacitors (±5%)

### Metalized Polyester Film Capacitors

- Case type: DM15
- Lead Space: 0.23"
- Tolerance: ±5%
- Operating temp. range: -55° to +125°C

Part No.	Mfr. Cross Ref. No.	Value	Volt. (V)	Size (mm) L x T x H	1	10	100	1000
15992CH	DM100-VP	10pF	500	11 x 4 x 9	\$ .49	\$ .38	\$ .31	\$ .30

### Other Manufacturers — Limited Great Deals\*

15991CH	DM100	10pF	500	11 x 4 x 9	\$ .49	\$ .44	\$ .333	<b>(.249)</b>
16037CH	DM220	22pF	500	11 x 4 x 9	.49	.39	.29	.23
16070CH	DM330	33pF	500	11 x 4 x 9	.49	.38	.31	.29
16096CH	DM470	47pF	500	11 x 4 x 9	.49	.39	.29	.25
16002CH	DM101	100pF	500	11 x 4 x 9	.49	.39	.31	.27
16088CH	DM331	330pF	500	11 x 4 x 9	.89	.73	.55	.45
16109CH	DM471	470pF	500	11 x 4 x 9	1.05	.95	.79	.65
16011CH	DM102	1000pF	100	11 x 4 x 9	1.19	.99	.89	.79

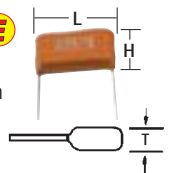
\* Capacitor dimensions and styles may vary

## Mylar Capacitors (±10%)

### Metallized Polyester Film Capacitors

- High performance at low cost
- Non-inductive construction
- Operating temp. range: -40°C to +85°C
- Dissipation factor: ≤.01 (at 1kHz)
- Dielectric strength: 150% of rated voltage for 5sec.

**Quantity SAVE**



† **Cross References:** Panasonic: ECQ-E Series; Sprague: DF/450P/451P/453P; Westlake: 160/168/ 185/167/184/186; Rubycon: MC/MN; Mepco: 713A1/719A1/ C280; TRW: X601PE/ X601CPE; Packtron: MF/RB; Secor: MMKS/MMKR/MMDR; RIFA: PHE353/ PHE354; Roederstein: MKT 1818/MKT 1822; WIMA: MKS; CSF Thompson: MD/ MC; Siemens: B325X-XX; NIC: NEM/NRM; \* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.†	Value µF	Volt. (V)	Size (mm)* L x T x H	Pricing			
					1	10	100	1000
26833CH	MY.001	.001	100	7.0 x 3.0 x 7.0	*	\$ .10	\$ .07	\$ .05
207802CH	MY.0015/1000	.0015	1000	23.5 x 5.1 x 10.7	*	.034	.031	.028
26868CH	MY.0022	.0022	100	6.0 x 3.0 x 10.0	*	.09	.056	<b>(.043)</b>
26876CH	MY.0047	.0047	100	6.0 x 3.0 x 9.0	*	.14	.119	<b>(.089)</b>
207829CH	MY.0068/220	.0068	220	18.0 x 5.5 x 10.0	*	.12	.07	<b>(.05)</b>
26884CH	MY.01	.01	100	6.0 x 3.0 x 7.0	*	.10	.06	.04
207837CH	MY.018/50	.018	50	6.1 x 2.6 x 11.3	*	.068	.062	.057
26905CH	MY.022	.022	100	6.0 x 3.0 x 10.0	*	.15	.10	.06
26921CH	MY.033	.033	100	8.0 x 4.0 x 11.0	*	.15	.10	.06
207861CH	MY.033/400	.033	400	11.0 x 4.0 x 8.0	.28	.224	.198	.164
26930CH	MY.047	.047	100	8.0 x 4.0 x 12.0	*	.15	.10	.06
135562CH	MY.1/50	.1	50	14.0 x 6.0 x 12.0	*	.11	.062	.056
26956CH	MY.1	.1	100	12.5 x 5.0 x 9.5	*	.17	.12	.07
93921CH	MY.1/250	.1	250	12.5 x 5.5 x 10	*	.19	.16	.13
26972CH	MY.22	.22	100	12.5 x 5.5 x 10	*	.19	.12	.085
93964CH	MY.33/250	.33	250	18.0 x 7.0 x 12.5	<del>\$0.30</del> .27	.221	.177	<b>(.133)</b>
26999CH	MY.47	.47	100	18.0 x 6.0 x 11.5	.39	.29	.20	.17
27001CH	MY1	1	100	18.0 x 7.5 x 14.0	.49	.39	.33	.29
93981CH	MY1/250	1	250	26.0 x 9.0 x 16.0	.50	.45	.40	.34
93999CH	MY2/250	2.2	250	26.0 x 9.0 x 16.0	.89	.69	.59	.45

† ±20% tolerance \* Capacitor dimensions and styles may vary

## Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt, Z5U Temperature Coefficient

Operating temperature range	+10°C to +85°C
Cap. change over temp. range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.

**NEW**



**Quantity SAVE**

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Value	Volt.	Size (mm) Dia. x L.S.	Pricing				
					1	10	100	1000	5000
332179CH	CD1/50	1pF	50V	5 x 2.54	*	\$.014	\$.009	\$.008	\$.007
135142CH	DC2.2	2.2pF	50V	5 x 2.54	*	.05	.035	.019	.015
332291CH	CD3.3/1000	3.3pF	1000V	5 x 2.54	*	.176	.103	.098	.097
332187CH	CD5/50	5pF	50V	5 x 2.54	*	.056	.028	.027	.026
332304CH	CD5/1000	5pF	1000V	5 x 2.54	*	.143	.108	.097	.092
15334CH	DC10	10pF	50V	5 x 2.54	*	.07	.05	.02	.015
332312CH	CD10/1000	10pF	1000V	6 x 2.54	.44	.35	.20	.18	.17
332195CH	CD12/50	12pF	50V	5 x 2.54	*	.014	.009	.008	.007
332208CH	CD15/50	15pF	50V	5 x 2.54	*	.03	.018	.016	.015
332321CH	CD20/1000	20pF	1000V	5 x 2.54	.44	.35	.20	.18	.17
15406CH	DC22	22pF	50V	6 x 2.54	*	.078	.055	.028	.022
332339CH	CD22/1000	22pF	1000V	5 x 2.54	*	.093	.052	.048	.044
332216CH	CD33/50	33pF	50V	5 x 2.54	*	.056	.027	.025	.02
15511CH	DC47	47pF	50V	5 x 2.54	*	.055	.039	.022	.017
332347CH	CD47/1000	47pF	1000V	5 x 2.54	.42	.234	.167	.092	.08
332224CH	CD68/50	68pF	50V	5 x 2.54	*	.065	.033	.029	.025
332355CH	CD68/1000	68pF	1000V	5 x 2.54	*	.141	.095	.086	.082
15342CH	DC100	100pF	50V	5 x 2.54	*	.056	.039	.028	.022
332232CH	CD120/50	120pF	50V	5 x 2.54	*	.056	.029	.027	.021
332363CH	CD120/1000	120pF	1000V	5 x 2.54	.23	.206	.147	.081	.071
332371CH	CD150/1000	150pF	1000V	5 x 2.54	*	.201	.143	.079	.068
15414CH	DC220	220pF	50V	5 x 2.54	*	.05	.035	.025	.015
332380CH	CD220/1000	220pF	1000V	5 x 2.54	.42	.201	.143	.079	.068
15449CH	DC330	330pF	50V	5 x 2.54	*	.05	.035	.025	.022
332398CH	CD330/1000	330pF	1000V	5 x 2.54	.42	.235	.17	.096	.091
15529CH	DC470	470pF	50V	5 x 2.54	*	.09	.072	.028	.024

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Value	Volt.	Size (mm) Dia. x L.S.	Pricing				
					1	10	100	1000	5000
332401CH	CD470/1000	470pF	1000V	5 x 2.54	\$.42	\$.235	\$.17	\$.096	\$.09
332419CH	CD560/1000	560pF	1000V	6 x 2.54	*	.043	.042	.041	.039
332241CH	CD680/50	680pF	50V	5 x 2.54	*	.056	.03	.027	.021
332427CH	CD680/1000	680pF	1000V	6 x 2.54	*	.149	.084	.071	.067
207853CH	DC820/1000	820pF	1000V	14 x 2.54	*	.07	.059	.048	.036
332435CH	CD1000/1000	1000pF	1000V	5 x 2.54	.38	.235	.17	.096	.09
332259CH	CD1200/50	1200pF	50V	5 x 2.54	*	.056	.03	.027	.021
332267CH	CD1500/50	1500pF	50V	5 x 2.54	*	.056	.03	.027	.021
332275CH	CD2200/50	2200pF	50V	5 x 2.54	*	.074	.037	.033	.027
332443CH	CD2200/1000	2200pF	1000V	6 x 2.54	.42	.293	.235	.12	.112
332283CH	CD3300/50	3300pF	50V	5 x 2.54	*	.074	.037	.033	.027
332451CH	CD4700/1000	4700pF	1000V	7 x 2.54	.35	.34	.208	.198	.188
332460CH	CD5000/1000	5000pF	1000V	7 x 2.54	.31	.30	.186	.177	.168
332478CH	CD7500/1000	7500pF	1000V	8 x 2.54	.48	.456	.323	.307	.292
15191CH	DC.001	.001µF	50V	6 x 2.54	*	.067	.056	.028	.024
97342CH	DC.0022/1K20	.0022µF	1000V	11 x 2.54	*	.22	.18	.16	.11
15212CH	DC.0047	.0047µF	50V	6 x 2.54	*	.05	.035	.03	.02
15230CH	DC.01	.01µF	50V	6 x 2.54	*	.067	.045	.033	.023
97376CH	DC.01/1K20	.01µF	1000V	12 x 2.54	*	.20	.133	.093	.073
332486CH	CD20000/1000	0.2µF	1000V	16 x 2.54	.60	.57	.33	.26	.247
15246CH	DC.022	.022µF	50V	8 x 2.54	*	.07	.05	.04	.03
15254CH	DC.047	.047µF	50V	8 x 2.54	*	.093	.077	.063	.044
332494CH	CD47000/1000	.047µF	1000V	16 x 2.54	1.59	1.22	.71	.68	.65
332507CH	CD50000/1000	.05µF	1000V	16 x 2.54	1.35	1.28	.81	.65	.62
151117CH	DC.1/25	.1µF	25V	6 x 2.54	*	.155	.145	.089	.078
15271CH	DC.1	.1µF	50V	8 x 2.54	*	.167	.145	.128	.105
332515CH	CD100000/1000	.1µF	1000V	21 x 2.54	1.95	1.79	1.05	.83	.79

### Other Manufacturers — Limited Great Deals\*

135141CH	DC2.2	2.2pF	50V	5	*	\$.05	\$.035	\$.019	\$.015
15333CH	DC10	10pF	50V	5	*	.063	.045	.018	.013
15405CH	DC22	22pF	50V	6	*	.07	.05	.025	.02
15510CH	DC47	47pF	50V	5	*	.05	.035	.02	.015
15341CH	DC100	100pF	50V	5	*	.05	.035	.025	.02
15413CH	DC220	220pF	50V	5	*	.045	.032	.023	.013
15448CH	DC330	330pF	50V	5	*	.045	.041	.029	.016
15528CH	DC470	470pF	50V	5	*	.08	.065	.025	.022
15190CH	DC.001	.001µF	50V	6	*	.06	.054	.043	.032

\* Capacitor dimensions and styles may vary

97341CH	DC.0022/1K20	.0022µF	1000V	11	*	\$.242	\$.166	\$.097	\$.072
15211CH	DC.0047	.0047µF	50V	6	*	.056	.04	.034	.022
15229CH	DC.01	.01µF	50V	6	*	.06	.04	.03	.02
97375CH	DC.01/1K20	.01µF	1000V	12	*	.18	.12	.084	.066
15245CH	DC.022	.022µF	50V	8	*	.063	.045	.036	.027
15253CH	DC.047	.047µF	50V	8	*	.084	.069	.057	.04
151116CH	DC.1/25	.1µF	25V	6	*	.14	.13	.08	.07
15270CH	DC.1	.1µF	50V	8	*	.15	.13	.115	.095

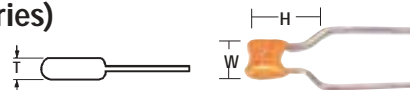
## Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications: • Data processing • Communications engineering

Operating temp. range: -10°C to +85°C \* Prepackaged: order in increments of 10, 100 or 1000

**NEW**

**SALE**



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Value	Volt.	Size (mm) W x T x H x L.S.	Pricing				
					1	10	100	1000	5000
81542CH	MD10	10pF	50V	3.5 x 2.0 x 3.0 x 2.54	*	\$.10	\$.065	\$.045	\$.034
332523CH	MOC10/100	10pF	100V	4.2 x 3.0 x 4.2 x 2.54	*	.089	.065	.046	.044
332531CH	MOC15/100	15pF	100V	4.2 x 3.0 x 4.2 x 2.54	.30	.202	.144	.101	.096
81534CH	MD22	22pF	50V	4.0 x 2.0 x 4.0 x 2.54	*	.105	.081	.05	.045
332540CH	MOC22/100	22pF	100V	4.2 x 3.0 x 4.2 x 2.54	*	.10	.073	.051	.048
332558CH	MOC33/100	33pF	100V	4.2 x 3.0 x 4.2 x 2.54	*	.167	.122	.08	.076
332566CH	MOC47/100	47pF	100V	4.2 x 3.0 x 4.2 x 2.54	*	.118	.086	.06	.057
332574CH	MOC68/100	68pF	100V	4.2 x 3.0 x 4.2 x 2.54	.30	.202	.144	.101	.096
81526CH	MD100	100pF	50V	3.5 x 2.0 x 3.0 x 2.54	*	.10	.078	.05	.039

Part No.	Mfr. Cross Ref. No.	Value	Volt.	Size (mm) W x T x H x L.S.	Pricing				
					1	10	100	1000	5000
81518CH	MD.001	.001µF	50V	4.5 x 2.0 x 3.0 x 2.54	*	\$.10	\$.078	\$.075	\$.068
138182CH	MD.0022	.0022µF	50V	4.0 x 2.0 x 5.5 x 2.54	*	.078	.067	.055	.045
25508CH	MD.01	.01µF	50V	3.5 x 2.0 x 3.0 x 2.54	*	.09	.06	.045	.041
57622CH	MD.047	.047µF	50V	2.5 x 2.5 x 3.0 x 2.54	*	.08	.07	.05	.039
25524CH	MD.1	.1µF	50V	6.0 x 2.0 x 4.0 x 2.54	*	.078	.067	.044	.039
25541CH	MD.22	.22µF	50V	6.0 x 2.0 x 4.5 x 2.54	*	.189	.133	.089	.072
138238CH	MD.33	.33µF	50V	6.0 x 2.0 x 8.0 x 2.54	*	.178	.155	.122	.078
25559CH	MD.47	.47µF	50V	4.5 x 2.5 x 4.5 x 2.54	*	.28	.21	.145	.133
81510CH	MD1	1µF	50V	6.0 x 3.0 x 7.0 x 2.54	.53	.48	.355	.255	.233

### Other Manufacturers — Limited Great Deals\*

81541CH	MD10	10pF	50V	3.5 x 2.0 x 3.0	*	\$.09	\$.056	\$.04	\$.027
81533CH	MD22	22pF	50V	4.0 x 2.0 x 4.0	*	.095	.073	.045	.04
81525CH	MD100	100pF	50V	3.5 x 2.0 x 3.0	*	.09	.07	.045	.035
81517CH	MD.001	.001µF	50V	4.5 x 2.0 x 3.0	*	.09	.07	.05	.035
138181CH	MD.0022	.0022µF	50V	4.0 x 2.0 x 5.5	*	.07	.06	.05	.04
138202CH	MD.0047	.0047µF	50V	5.0 x 2.0 x 5.5	*	.07	.056	.049	.044
25507CH	MD.01	.01µF	50V	3.5 x 2.0 x 3.0	*	.10	.067	.05	.045

57621CH	MD.047	.047µF	50V	2.5 x 2.5 x 3.0	*	\$.072	\$.063	\$.045	\$.027
25523CH	MD.1	.1µF	50V	6.0 x 2.0 x 4.0	*	.07	.06	.04	.035
25540CH	MD.22	.22µF	50V	6.0 x 2.0 x 4.5	*	.17	.12	.08	.06
138237CH	MD.33	.33µF	50V	6.0 x 2.0 x 8.0	*	.16	.14	.11	.07
25558CH	MD.47	.47µF	50V	4.5 x 2.5 x 4.5	*	.25	.19	.13	.12
81509CH	MD1	1µF	50V	6.0 x 3.0 x 7.0	.48	.43	.32	.23	.21

\* Capacitor dimensions and style may vary



**JAMECO** ValuePro

## Monolithic Ceramic Capacitors (±10%) (XR7 Series)

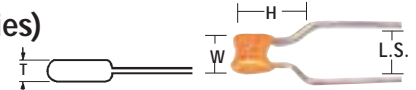
Applications: • Data processing • Communications engineering  
 Operating temp. range: -10°C to +85°C

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Value	Volt.	Size (mm) W x T x H x L.S.	Pricing				
					1	10	100	1000	5000
332582CH	MOC100/100	100pF	100V	5 x 5 x 3 x 2.5	*	\$.14	\$.12	\$.081	\$.071
332591CH	MOC220/100	220pF	100V	5 x 5 x 3 x 2.5	.27	.188	.134	.074	.07
332603CH	MOC330/100	330pF	100V	5 x 5 x 3 x 2.5	.27	.188	.134	.094	.089
332611CH	MOC470/100	470pF	100V	5 x 5 x 3 x 2.5	*	.121	.088	.08	.076
332620CH	MOC1000/100	1000pF	100V	5 x 5 x 3 x 2.5	*	.107	.078	.055	.052
332638CH	MOC4700/100	4700pF	100V	5 x 5 x 3 x 2.5	*	.107	.078	.055	.052

**A Jameco EXCLUSIVE**

**NEW**



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Value	Volt.	Size (mm) W x T x H x L.S.	Pricing				
					1	10	100	1000	5000
332646CH	MOC10000/100	0.01µF	100V	5 x 5 x 3 x 2.5	*	\$.125	\$.09	\$.063	\$.06
332654CH	MOC22000/100	0.022µF	100V	5 x 5 x 3 x 2.5	*	.111	.08	.056	.053
332662CH	MOC47000/100	0.047µF	100V	5 x 5 x 3 x 2.5	*	.142	.104	.073	.069
332671CH	MOC100000/100	0.1µF	100V	5 x 5 x 3 x 2.5	*	.132	.096	.067	.064
332689CH	MOC150000/100	0.15µF	50V	5 x 5 x 3 x 2.5	.45	.408	.366	.33	.314

**JAMECO** ValuePro

**NEW**

## Dipped Tantalum Capacitors (±10%)

Resin Dipped Solid Tantalum Capacitors

**Quantity SAVE**

**A Jameco EXCLUSIVE**

• Operating temp. range: -55°C to +85°C (+125°C with derating) • Rated voltage DC: ≤ +85°C • Low leakage current  
 • Exceptional temperature stability • Moisture-resistant • Flame retardant coating • Designed for entertainment and commercial equipment

† Cross References: Panasonic: EF Series; AVX: Tap Series; Sprague: 196D and 199D; Matsuo: 202; Kemet: T350/ T360; Mepco: 49GS; NEC: DN;

Nichicon: 599; NIC: NDTM; Hitachi: TSD-3

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Value	Volt.	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
33487CH	TM.1	.1µF	35	4.5 x 7 x 2.54	*	\$.25	\$.19	\$.15
332110CH	TDR0.1/50	.1µF	50	4.5 x 7 x 2.54	.30	.269	.194	.18
33508CH	TM.22	.22µF	35	4.5 x 7 x 2.54	*	.25	.19	.15
33524CH	TM.33	.33µF	35	4.5 x 7 x 2.54	*	.25	.19	.15
332128CH	TDR0.33/50	.33µF	50	4.5 x 7 x 2.54	.39	.351	.227	.18
33532CH	TM.47	.47µF	35	4.5 x 7 x 2.54	*	.20	.15	.14
332136CH	TDR0.47/50	.47µF	50	4.5 x 7 x 2.54	.39	.351	.24	.18
61103CH	TM.68	.68µF	35	4.5 x 7 x 2.54	*	.25	.19	.17
154861CH	TM1/25	1µF	25	4.5 x 7 x 2.54	.32	.29	.25	.22
33663CH	TM1	1µF	35	4.5 x 7 x 2.54	.32	.29	.25	.22
332144CH	TDR1/50	1µF	50	8.0 x 5 x 2.54	.34	.30	.216	.203
94002CH	TM2.2/16	2.2µF	16	4.5 x 7 x 2.54	*	.19	.16	.12
33735CH	TM2.2/25	2.2µF	35	5 x 8 x 2.54	.39	.35	.29	.22
332152CH	TDR2.2/50	2.2µF	50	6.5 x 11 x 2.54	.66	.58	.429	.387
33770CH	TM3.3	3.3µF	35	5 x 8 x 2.54	.55	.36	.33	.31
94036CH	TM4.7/16	4.7µF	16	5 x 8 x 2.54	.47	.38	.28	.20
94044CH	TM4.7/25	4.7µF	25	5 x 8 x 2.54	.49	.44	.33	.20

Part No.	Mfr. Cross Ref. No.†	Value	Volt.	Size (mm) D x H x L.S.	Pricing			
					1	10	100	500
33807CH	TM4.7	4.7µF	35	5.5 x 9.5 x 2.54	\$.45	\$.42	\$.37	\$.27
33874CH	TM6.8	6.8µF	35	6.5 x 11 x 2.54	.59	.45	.36	.32
94061CH	TM10/16	10µF	16	5 x 8 x 2.54	.45	.39	.29	.25
94079CH	TM10/25	10µF	25	5.5 x 9.5 x 2.54	.59	.50	.40	.36
33690CH	TM10	10µF	35	5.5 x 11 x 2.54	.89	.79	.69	.59
332161CH	TDR10/50	10µF	50	8.5 x 13 x 2.54	2.75	2.42	1.97	1.82
33719CH	TM15	15µF	25	6.5 x 11 x 2.54	.89	.80	.72	.61
33752CH	TM22	22µF	6.3	5.5 x 9.5 x 2.54	.45	.37	.26	.22
94095CH	TM22/16	22µF	16	5.5 x 9.5 x 2.54	.69	.59	.49	.45
332101CH	TDR22/35	22µF	35	8.5 x 13 x 2.54	1.95	1.70	1.16	1.08
33786CH	TM33	33µF	25	8.5 x 13 x 2.54	2.35	2.09	1.62	1.05
94124CH	TM47/16	47µF	16	6.5 x 11 x 2.54	1.69	1.55	1.35	.95
33823CH	TM47	47µF	25	9.5 x 16.5 x 2.54	3.39	3.05	2.35	1.85
332099CH	TDR68/25	68µF	25	9.5 x 16.5 x 2.54	6.45	5.57	3.03	2.82
33701CH	TM100	100µF	6.3	8.5 x 13 x 2.54	1.19	1.09	.95	.85
332081CH	TDR100/20	100µF	20	8.5 x 13 x 2.54	4.85	4.29	3.03	2.81

Passives



## Other Manufacturers — Limited Great Deals\*

33486CH	TM.1	.1µF	35	4.5 x 7	\$.23	\$.225	\$.171	\$.135
33507CH	TM.22	.22µF	35	4.5 x 7	*	.265	.182	.137
33523CH	TM.33	.33µF	35	4.5 x 7	*	.225	.171	.135
33531CH	TM.47	.47µF	35	4.5 x 7	*	.18	.135	.126
61102CH	TM.68	.68µF	35	4.5 x 7	*	.225	.191	.143
154860CH	TM1/25	1µF	25	4.5 x 7	.29	.261	.225	.198
33662CH	TM1	1µF	35	4.5 x 7	.29	.261	.225	.198
94001CH	TM2.2/16	2.2µF	16	4.5 x 7	.29	.24	.20	.15
94019CH	TM2.2/25	2.2µF	25	4.5 x 7	\$.35	.30	.232	.186
33734CH	TM2.2	2.2µF	35	5 x 8	.35	.315	.261	.198
33769CH	TM3.3	3.3µF	35	5 x 8	.50	.324	.297	.279
94035CH	TM4.7/16	4.7µF	16	5 x 8	\$.42	.34	.272	.218
94043CH	TM4.7/25	4.7µF	25	5 x 8	.44	.396	.297	.18

\* Capacitor dimensions and styles may vary

33806CH	TM4.7	4.7µF	35	5.5 x 9.5	\$.41	\$.378	\$.333	\$.243
33873CH	TM6.8	6.8µF	35	6.5 x 11	.53	.48	.38	.29
94060CH	TM10/16	10µF	16	5.0 x 8	.41	.351	.261	.225
94078CH	TM10/25	10µF	25	5.5 x 9.5	.53	.45	.36	.324
33689CH	TM10	10µF	35	6.5 x 11	.80	.71	.62	.53
33718CH	TM15	15µF	25	6.5 x 11	.80	.72	.65	.58
33751CH	TM22	22µF	6.3	5.5 x 9.5	.49	.44	.35	.26
94094CH	TM22/16	22µF	16	5.5 x 9.5	.62	.53	.441	.405
94107CH	TM22/25	22µF	25	8.5 x 13	1.59	1.45	.89	.79
33785CH	TM33	33µF	25	8.5 x 13	2.09	1.89	1.45	.95
94123CH	TM47/16	47µF	16	6.5 x 11	1.55	1.39	1.25	.86
33822CH	TM47	47µF	25	9.5 x 16.5	3.05	2.75	2.09	1.65
33700CH	TM100	100µF	6.3	8.5 x 13	1.09	.99	.86	.77

**JAMECO** ValuePro

**NEW**

## Motor Capacitors

**A Jameco EXCLUSIVE**

• Operating temperature: -25°C to +85°C • Metal or plastic shell and double welding sheet metal • Insulation resistance: >300MΩ • Quick connect

### Motor Running Capacitors

Part No.	Mfr. Cross Ref. No.	Value (µF)	Volt.	Dimensions (mm) D x H	Pricing			
					1	10	100	500
332793CH	MRC370V2	2µF	370V	34 x 50	\$4.69	\$4.17	\$3.88	\$3.69
332806CH	MRC370V4	4µF	370V	34 x 50	5.05	4.80	4.33	3.90
332814CH	MRC370V5	5µF	370V	34 x 50	3.85	3.68	3.12	2.81
332822CH	MRC370V7R5	7.5µF	370V	36 x 80	5.89	3.96	3.38	3.04
332831CH	MRC370V10	10µF	370V	42 x 80	4.85	4.06	3.46	3.29
332849CH	MRC370V15	15µF	370V	42 x 80	6.05	5.07	4.38	4.16
332857CH	MRC370V25	25µF	370V	42 x 80	8.05	6.76	5.83	5.54
332865CH	MRC440V10	10µF	440V	42 x 80	6.49	5.47	4.72	4.48
332873CH	MRC440V20	20µF	440V	50 x 100	9.99	8.51	7.27	6.91
332881CH	MRC440V25	25µF	440V	50 x 100	10.79	9.19	7.84	7.45

### Motor Starting Capacitors

Part No.	Mfr. Cross Ref. No.	Value (µF)	Volt.	Dimensions (mm) D x H	Pricing			
					1	10	100	500
332697CH	MSC125V21	21µF	125V	36.5 x 69.85	\$2.35	\$2.23	\$2.12	\$2.01
332700CH	MSC125V124	124µF	125V	36.5 x 69.85	2.75	2.61	2.48	2.36
332718CH	MSC125V161	161µF	125V	36.5 x 69.85	2.95	2.80	2.66	2.53
332726CH	MSC125V189	189µF	125V	36.5 x 69.85	3.09	2.94	2.79	2.65
332734CH	MSC125V216	216µF	125V	36.5 x 85.72	3.29	3.13	2.97	2.82
332742CH	MSC125V270	270µF	125V	36.5 x 85.72	3.59	3.41	3.24	3.08
332751CH	MSC125V590	590µF	125V	46.02 x 111.12	6.15	5.84	5.55	5.27
332769CH	MSC250V21	21µF	250V	36.5 x 69.85	2.95	2.80	2.66	2.53
332777CH	MSC250V30	30µF	250V	36.5 x 69.85	3.09	2.94	2.90	2.87
332785CH	MSC250V53	53µF	250V	46.02 x 85.72	3.85	3.25	3.02	2.87



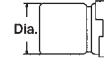
# Surface Mount Capacitors



Lower \$\$\$

## Aluminum Electrolytic Capacitors

Operating temperature range	-40°C to +85°C
Leakage Current (20°C) after 2 minutes	≤ .01CV or 3μA



Side View



Bottom View

**SALE**

Quantity SAVE

\* Prepackaged: order in increments of 10, 100 or 500

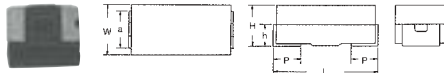
\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref No.†	Value (μF)	Voltage	Dia. (mm)	Pricing			
					1	10	100	500
193228CH	SE1/50	1	50	4.0	* .15	.14	.11	
193236CH	SE2.2/50	2.2	50	4.0	* .134	.114	.086	
193244CH	SE3.3/50	3.3	50	4.0	* .13	.107	.08	
193076CH	SE427/25	4.7	25	4.0	* .16	.13	.096	
193252CH	SE4.7/50	4.7	50	5.0	* .17	.14	.105	
192997CH	SE10/16	10	16	4.0	* .14	.112	.084	
193084CH	SE10/25	10	25	5.0	* .16	.13	.096	
193164CH	SE10/35	10	35	5.0	.22	.20	.16	.12
193261CH	SE10/50	10	50	6.3	* .23	.168	.146	
192891CH	SE22/6.3	22	6.3	4.0	* .076	.069	.063	
193009CH	SE22/16	22	16	5.0	* .14	.119	.089	
193092CH	SE22/25	22	25	6.3	* .18	.153	.115	
193172CH	SE22/35	22	35	6.3	.22	.198	.158	.119
193279CH	SE22/50	22	50	6.3	* .26	.221	.165	
193017CH	SE33/16	33	16	5.0	* .17	.136	.102	
193105CH	SE33/25	33	25	6.3	* .22	.19	.14	
193181CH	SE33/35	33	35	8.0	\$.029	.25	.18	.135
193287CH	SE33/50	33	50	8.0	\$.035	.25	.213	.201
193025CH	SE47/16	47	16	6.3	* .17	.136	.102	
193113CH	SE47/25	47	25	6.3	.33	.30	.24	.18
193199CH	SE47/35	47	35	6.3	* .25	.212	.159	

† Cross Reference: Panasonic: VS Series

Part No.	Mfr. Cross Ref No.†	Value (μF)	Voltage	Dia. (mm)	Pricing			
					1	10	100	500
193295CH	SE47/50	47	50	10.0	\$.33	.277	.253	.229
192903CH	SE100/6.3	100	6.3	6.3	* .10	.092	.083	
193033CH	SE100/16	100	16	8.0	* .26	.23	.21	
193121CH	SE100/25	100	25	8.0	\$.039	.30	.27	.21
193201CH	SE100/35	100	35	10.0	\$.039	.37	.333	.305
193308CH	SE100/50	100	50	10.0	.46	.419	.374	.329
192962CH	SE220/10	220	10	8.0	\$.031	.27	.25	.23
193041CH	SE220/16	220	16	8.0	\$.052	.48	.432	.346
193130CH	SE220/25	220	25	10.0	.63	.57	.468	.366
193210CH	SE220/35	220	35	8.0	\$.055	.47	.42	.34
193316CH	SE220/50	220	50	10.0	.58	.521	.456	.34
193050CH	SE330/16	330	16	10.0	.48	.432	.346	.264
193148CH	SE330/25	330	25	8.0	.47	.42	.34	.25
192920CH	SE470/6.3	470	6.3	8.0	\$.044	.29	.26	.24
192971CH	SE470/10	470	10	8.0	\$.045	.33	.30	.28
193068CH	SE470/16	470	16	10.0	.59	.527	.422	.317
193156CH	SE470/25	470	25	10.0	.58	.52	.474	.429
192938CH	SE1000/6.3	1000	6.3	10.0	\$.051	.37	.34	.31
192989CH	SE1000/10	1000	10	10.0	\$.052	.42	.38	.34
192946CH	SE1500/6.3	1500	6.3	10.0	\$.059	.39	.36	.32

## Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)



Case Size (Dimensions in mm)

EIA	L	W	H	P	a	h(min)
CASE CODE	±0.2	±0.2	±0.2	±0.3	±0.2	
A (3216)	3.2	1.6	1.7	0.8	1.2	0.7
B (3528)	3.5	2.8	1.9	0.8	2.0	0.7
C (6032)	6.0	3.2	2.5	1.3	2.0	1.0
D (7343)	7.3	4.3	2.9	1.3	2.4	1.0

Part No.	Capacitance	Case Size	10 pc. Incremnt	Pricing		
				100	500	1000
87021CH	10μF	B	\$.258	\$.228	\$.181	\$.151
87119CH	100μF	D	.92	.88	.83	.80

### Other Manufacturers — Limited Great Deals

87020CH	10μF	B	\$.203	\$.15	\$.136	\$.105
87118CH	100μF	D	.80	.76	.73	.69

Part No.	Capacitance	Case Size	10 pc. Incremnt	Pricing		
				100	500	1000
86933CH	1μF	A	\$.19	\$.15	\$.11	\$.105
87039CH	10μF	C	.32	.29	.25	.23
87101CH	47μF	D	1.01	.90	.80	.70

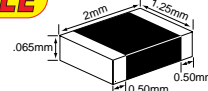
### Other Manufacturers — Limited Great Deals

86932CH	1μF	A	\$.148	\$.133	\$.107	\$.08
87038CH	10μF	C	.27	.239	.191	.143
87100CH	47μF	D	.73	.70	.66	.63

Plastic Flip Top Case for SMDs see page 244.

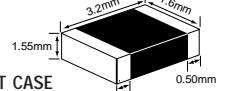


**SALE**



0805 SMT CASE

## Multilayer Ceramic Chip Capacitors



1206 SMT CASE

### X7R SERIES (±10%)

Quantity SAVE

### Z5U SERIES (±20%)

Part No.	Capacitance	Volt.	100 pc. Incremnt	Pricing		
				500	1000	3000
87312CH	.01μF	50	\$.07	\$.04	\$.03	\$.016
87371CH	.1μF	25	.09	.06	.053	.048

### Other Manufacturers — Limited Great Deals

87311CH	.01μF	50	\$.063	\$.036	\$.027	\$.014
87370CH	.1μF	25	.08	.054	.048	.043

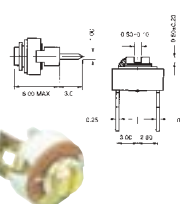
Part No.	Capacitance	Volt.	100 pc. Incremnt	Pricing		
				500	1000	3000
87330CH	.01μF	50	\$.078	\$.044	\$.033	\$.025
87389CH	.1μF	50	.13	.05	.046	.045
87397CH	.22μF	25	.25	.22	.19	.15

### Other Manufacturers — Limited Great Deals

87329CH	.01μF	50	\$.063	\$.036	\$.027	\$.021
87388CH	.1μF	50	.047	.03	.022	.017
87396CH	.22μF	25	.094	.088	.082	.077

## 5mm Ceramic Trimmer Capacitor

- Working voltage: 200VDC
- Withstand voltage: 400VDC
- Turning torque: 35-200 g-cm
- Operating temperature range: -30°C~+85°C
- Insulation resistance: >10MΩ min. @ 250VDC



Part No.	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing			
				1	10	100	1000
136979CH	9.0-50.0	> 200	Green	\$.89	\$.80	\$.64	\$.48

Part No.	Capacitance	Voltage	100 pc. Incremnt	Pricing		
				500	1000	5000
87177CH	.1μF	50	\$.033	\$.026	\$.022	\$.017

Part No.	Capacitance	Voltage	100 pc. Incremnt	Pricing		
				500	1000	5000
87185CH	.1μF	50	\$.072	\$.062	\$.044	\$.035
87206CH	.22μF	50	.081	.053	.044	.03
87222CH	.47μF	50	.225	.198	.171	.153

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## 8mm .315" Ceramic Trimmer Capacitors Thru Hole

- Working voltage: 250VDC
- Withstand voltage: 550VDC
- Turning torque: 40-200 g-cm
- Operating temperature range: -55°C~+85°C
- Insulation resistance: 10MΩ min. @ 250VDC



134818CH

Part No.	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing			
				1	10	100	1000
134819CH	3.5-13.0	> 300	Ivory	\$.69	\$.53	\$.53	\$.446
32838CH	4.0-34.0	> 300	Yellow	.99	.84	.77	.58
32854CH	6.0-70.0	> 200	Nil	.92	.78	.72	.68
94449CH	8.5-100	> 200	Purple	1.05	.94	.76	.57
94465CH	8.5-120	> 200	Nil	.99	.79	.65	.59

### Other Manufacturers — Limited Great Deals

134818CH	3.5-13.0	> 300	Ivory	\$.62	\$.55	\$.45	\$.335
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# Carbon Film Resistors and Resistor Networks

## 1/4-Watt Carbon Film Resistors (±5%)



### Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below  
Values may not be combined for quantity price breaks

Pricing (Sold in bags of 100 pieces)				
Specify Part No. & Resistor Value (see Standard Resistor Values Chart below)	1 Bag	10 Bags	50 Bags	100 Bags
	\$ .99/bag	\$ .57/bag	\$ .49/bag	\$ .46/bag

### Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%)

Assortments may not be combined for quantity price breaks

Part No.	Description (Including bulk pack values)	1	10	25
10719CH	5 ea. 70 values (every other value from 10Ω - 5.6 MΩ) (350 pcs.)	\$9.95	\$8.95	\$7.95
103165CH	10 ea. 24 values marked (●) and 50 ea. 6 values marked (★) (540 pcs.)	12.95	11.49	9.95
10663CH	100 ea. 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
10655CH	100 ea. 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
81832CH	1/4-watt resistor component cabinet kit – 30 values (540 pcs.), pg 83	27.95	24.95	22.49

## Standard Resistor Values Chart

★▲ see above

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	
30293CH	2.2	59192CH	15	29946CH	▲✖	100	31499CH	▲●	680	31026CH	▲✖	4.7k	30841CH	▲●	33k	
30349CH	2.4	30197CH	16	30040CH		110	31561CH		750	31237CH	▲●	5.1k	30912CH		36k	
30373CH	2.7	30234CH	18	30082CH		120	31624CH		820	31270CH	▲●	5.6k	30955CH		39k	
30621CH	3.0	30411CH	20	30120CH		130	31691CH		910	31405CH		6.2k	31077CH		43k	
30656CH	3.3	65736CH	22	30162CH	▲●	150	29663CH	▲✖	1.0k	31430CH		6.8k	31149CH	▲●	47k	
30699CH	3.6	30541CH	24	59248CH		160	29719CH		1.1k	31536CH		7.5k	31309CH		51k	
30728CH	3.9	30584CH	27	59281CH		180	29735CH	●	1.2k	31595CH		8.2k	31350CH		56k	
30980CH	4.3	30752CH	30	59424CH		200	58931CH		1.3k	60353CH		9.1k	31456CH		62k	
59811CH	4.7	30824CH	33	30470CH	▲✖	220	29760CH	▲●	1.5k	29911CH	▲✖	10k	31481CH		68k	
31211CH	5.1	30904CH	36	30568CH		240	29786CH		1.6k	30031CH		11k	31552CH		75k	
31253CH	5.6	59723CH	39	30605CH	▲●	270	29807CH		1.8k	30074CH		12k	31616CH		82k	
31392CH	6.2	31069CH	43	30795CH		300	30277CH	▲●	2.0k	30111CH		13k	31683CH		91k	
31421CH	6.8	31106CH	▲●	47	30867CH	▲●	330	30314CH	▲●	2.2k	30146CH	▲●	15k	29997CH	▲✖	100k
31528CH	7.5	31296CH	51	30921CH		360	30357CH		2.4k	30200CH		16k	30058CH		110k	
31587CH	8.2	31341CH	56	30963CH	●	390	30390CH	▲●	2.7k	30242CH		18k	30091CH		120k	
31641CH	9.1	60089CH	62	31085CH		430	30630CH		3.0k	30429CH	●	20k	30138CH		130k	
29882CH	▲●	10	60134CH	68	31165CH	▲●	470	30672CH	▲●	3.3k	30453CH	▲●	22k	30171CH		150k
59061CH	11	60222CH	75	31317CH		510	30701CH		3.6k	30550CH		24k	30226CH		160k	
30066CH	12	60302CH	82	31376CH		560	30736CH		3.9k	30592CH		27k	30269CH		180k	
30103CH	13	31675CH	91	31464CH		620	59782CH		4.3k	30779CH		30k	30437CH		200k	
													29751CH		1.3M	
													29938CH	▲●	10M	

## 1/8-Watt Carbon Film Resistor (±5%) Assortments

• 1/8-W – \$12.95/k (bulk) • 1/2-W – \$15.95/k (bulk)

Part No.	Cross Ref. No.	Values included	Description (see chart below)	Pricing	
				1	10
108302CH	ASST1830	★	10 ea. of 24 values marked by ★ and 50 ea. of 6 values marked below by # (540 pcs.)	\$12.95	\$11.49
108290CH	ASST1827	✓	100 ea. of 27 values marked by ✓ (2,700 pcs.)	29.95	26.95
108329CH	CAB182R	—	1/8-watt resistor component cabinet kit – 30 values (540 pcs.), see page 83	24.95	22.49

### 1/8 & 1/2-Watt Resistor Assortments Value Chart (Ohms)

10 ✓	150 ✓	330 ✓	680 ✓	2.0k ✓	3.3k ✓	5.6k ✓	15k ✓	33k ✓	470k ✓
47 ✓	220 ✓	390 ✓	1.0k ✓	2.2k ✓	4.7k ✓	6.8k ✓	22k ✓	47k ✓	1.0M ✓
100 ✓	270 ✓	470 ✓	1.5k ✓	2.7k ✓	5.1k ✓	10k ✓	27k ✓	100k ✓	10M ✓

(✓), (★), (#) symbols indicate Resistor values included in Assortments above and below.

## 1/2-Watt Carbon Film Resistor (±5%) Assortments

• 1/8-W – \$12.95/k (bulk) • 1/2-W – \$15.95/k (bulk)

Part No.	Cross Ref. No.	Values Included	Description (see chart above)	Pricing	
				1	10
107852CH	ASST1230	★	10 ea. of 24 values marked by ★ and 50 ea. of 6 values marked by # (540 pcs.)	\$14.95	\$13.49
107844CH	ASST1227	✓	100 ea. of 27 values marked by ✓ (2,700 pcs.)	34.95	31.49
107836CH	ASST1270	—	5 ea. of 70 values (every other value from 10Ω - 5.6MΩ) (350 pcs.) (see chart above)	10.95	9.95
107879CH	CAB12R	—	1/2-watt resistor component cabinet kit – 30 values (540 pcs.), see page 83	29.95	26.95

## Order Anytime, Day or Night

Our friendly sales department will take your order  
24x7x365 by phone, fax, web or email.

Color Code Legend			
New	Sale	Lower\$	QtySave

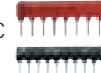
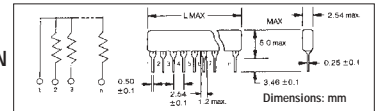
## Single-In-Line “SIP” Resistor Networks (±2%)

8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):

- 8-pin package (7 resistors) = 8BRN
- 10-pin package (9 resistors) = 10BRN

- Rated power per resistor at 70°C: 125mW/ resistor
- Operating temperature range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Max. working voltage: 100V or rated power x resistance, whichever is smaller
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- Low profile 5mm (.200" body ht.)
- Low profile is compatible w/ DIPs
- Cermet thick film construction



Part No.	Pins	Ohms
97826CH	8	10k
97851CH	10	330
97869CH	10	470
97877CH	10	1.0k
97893CH	10	2.2k
24660CH	10	4.7k
24643CH	10	10k
98087CH	10	47k
98095CH	10	100k

Pricing per each			
1	10	100	1000
\$ .25	\$ .19	\$ .15	\$ .12
Pricing for P/N 97826			
\$ .24	\$ .18	\$ .14	\$ .11

## Dual-In-Line “DIP” Resistor Networks (±2%)

16-Pin Isolated (140mW/Resistor) ±2%

Features (161RN):

- Maximum operating voltage: 100V
- Temperature coefficient: ±100ppm/°C
- Operating temp.: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability/solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation



Pricing per each			
1	10	100	1000
\$ .39	\$ .35	\$ .31	\$ .29

Part No.	Ohms
164005CH	33
108556CH	100
108564CH	220
108572CH	330
108581CH	470
108599CH	1.0k
108610CH	4.7k
108628CH	10k
108644CH	100k

### SIP and DIP Resistor Network Cross Reference Chart

Jameco	CTS	A – B	Bourns	Dale	Beckman	Sprague	MEPCO
8BRN...	770-81-R...	708A...	4608X-101...	CSC08A01...	L08-1-R...	356CF... X2PD	9S08... GL002
10BRN...	770-101-R...	710A...	4610X-101...	CSC10A01...	L10-1-R...	256CX... X2PD	9S10... GL002
161RN...	761-3-R...	316B...	4116R-001...	MDP16-03...	898-3-R...	916C... X5SR	D16H... 12-J



## 6, 8, and 10-Pin Bussed Single-In-Line "SIP" Resistor Networks (±2%)

## 6-Pin Resistor Network, 4606X Series Value Equivalents

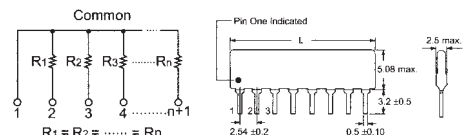
Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs
267098CH	4606X-101-100	10	267872CH	4606X-101-681	680	268082CH	4606X-101-223	22k
267670CH	4606X-101-220	22	267881CH	4606X-101-821	820	268091CH	4606X-101-273	27k
267688CH	4606X-101-270	27	267899CH	4606X-101-102	1.0k	268103CH	4606X-101-333	33k
267696CH	4606X-101-330	33	267901CH	4606X-101-122	1.2k	268111CH	4606X-101-393	39k
267709CH	4606X-101-390	39	267910CH	4606X-101-152	1.5k	268120CH	4606X-101-473	47k
267717CH	4606X-101-470	47	267928CH	4606X-101-182	1.8k	268138CH	4606X-101-563	56k
267725CH	4606X-101-510	51	267936CH	4606X-101-202	2.0k	268146CH	4606X-101-683	68k
267733CH	4606X-101-560	56	267944CH	4606X-101-222	2.2k	268154CH	4606X-101-823	82k
267741CH	4606X-101-680	68	267952CH	4606X-101-272	2.7k	268162CH	4606X-101-104	100k
267750CH	4606X-101-820	82	267961CH	4606X-101-332	3.3k	268171CH	4606X-101-124	120k
267768CH	4606X-101-101	100	267979CH	4606X-101-392	3.9k	268189CH	4606X-101-154	150k
267776CH	4606X-101-121	120	267987CH	4606X-101-472	4.7k	268197CH	4606X-101-184	180k
267784CH	4606X-101-151	150	267995CH	4606X-101-512	5.1k	268200CH	4606X-101-224	220k
267792CH	4606X-101-181	180	268007CH	4606X-101-562	5.6k	268218CH	4606X-101-274	270k
267805CH	4606X-101-221	220	268015CH	4606X-101-682	6.8k	268226CH	4606X-101-334	330k
267813CH	4606X-101-271	270	268023CH	4606X-101-822	8.2k	268234CH	4606X-101-394	390k
267821CH	4606X-101-331	330	268031CH	4606X-101-103	10k	268242CH	4606X-101-474	470k
267830CH	4606X-101-391	390	268040CH	4606X-101-123	12k	268251CH	4606X-101-564	560k
267848CH	4606X-101-471	470	268058CH	4606X-101-153	15k	268269CH	4606X-101-684	680k
267856CH	4606X-101-511	510	268066CH	4606X-101-183	18k	268277CH	4606X-101-824	820k
267864CH	4606X-101-561	560	268074CH	4606X-101-203	20k	268285CH	4606X-101-105	1.0M

## 8-Pin Resistor Network, 4608X Series Value Equivalents

Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs
267354CH	4608X-101-100	10	276066CH	4608X-101-681	680	276277CH	4608X-101-223	22k
275864CH	4608X-101-220	22	276074CH	4608X-101-821	820	276285CH	4608X-101-273	27k
275872CH	4608X-101-270	27	276082CH	4608X-101-102	1.0k	276293CH	4608X-101-333	33k
275881CH	4608X-101-330	33	276091CH	4608X-101-122	1.2k	276306CH	4608X-101-393	39k
275899CH	4608X-101-390	39	276103CH	4608X-101-152	1.5k	276314CH	4608X-101-473	47k
275901CH	4608X-101-470	47	276111CH	4608X-101-182	1.8k	276322CH	4608X-101-563	56k
275910CH	4608X-101-510	51	276120CH	4608X-101-202	2.0k	276331CH	4608X-101-683	68k
275928CH	4608X-101-560	56	276138CH	4608X-101-222	2.2k	276349CH	4608X-101-823	82k
275936CH	4608X-101-680	68	276146CH	4608X-101-272	2.7k	276357CH	4608X-101-104	100k
275944CH	4608X-101-820	82	276154CH	4608X-101-332	3.3k	276365CH	4608X-101-124	120k
275952CH	4608X-101-101	100	276162CH	4608X-101-392	3.9k	276373CH	4608X-101-154	150k
275961CH	4608X-101-121	120	276171CH	4608X-101-472	4.7k	276381CH	4608X-101-184	180k
275979CH	4608X-101-151	150	276189CH	4608X-101-512	5.1k	276390CH	4608X-101-224	220k
275987CH	4608X-101-181	180	276197CH	4608X-101-562	5.6k	276402CH	4608X-101-274	270k
275995CH	4608X-101-221	220	276200CH	4608X-101-682	6.8k	276411CH	4608X-101-334	330k
276007CH	4608X-101-271	270	276218CH	4608X-101-822	8.2k	276429CH	4608X-101-394	390k
276015CH	4608X-101-331	330	276226CH	4608X-101-103	10k	276437CH	4608X-101-474	470k
276023CH	4608X-101-391	390	276234CH	4608X-101-123	12k	276445CH	4608X-101-564	560k
276031CH	4608X-101-471	470	276242CH	4608X-101-153	15k	276453CH	4608X-101-684	680k
276040CH	4608X-101-511	510	276251CH	4608X-101-183	18k	276461CH	4608X-101-824	820k
276058CH	4608X-101-561	560	276269CH	4608X-101-203	20k	276470CH	4608X-101-105	1.0M

## 10-Pin Resistor Network, 4610X Series Value Equivalents

Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs
267418CH	4610X-101-100	10	280786CH	4610X-101-681	680	280997CH	4610X-101-223	22k
280583CH	4610X-101-220	22	280794CH	4610X-101-821	820	281009CH	4610X-101-273	27k
280591CH	4610X-101-270	27	280807CH	4610X-101-102	1.0k	281017CH	4610X-101-333	33k
280604CH	4610X-101-330	33	280815CH	4610X-101-122	1.2k	281025CH	4610X-101-393	39k
280612CH	4610X-101-390	39	280823CH	4610X-101-152	1.5k	281033CH	4610X-101-473	47k
280621CH	4610X-101-470	47	280831CH	4610X-101-182	1.8k	281041CH	4610X-101-563	56k
280639CH	4610X-101-510	51	280840CH	4610X-101-202	2.0k	281050CH	4610X-101-683	68k
280647CH	4610X-101-560	56	280858CH	4610X-101-222	2.2k	281068CH	4610X-101-823	82k
280655CH	4610X-101-680	68	280866CH	4610X-101-272	2.7k	281076CH	4610X-101-104	100k
280663CH	4610X-101-820	82	280874CH	4610X-101-332	3.3k	281084CH	4610X-101-124	120k
280671CH	4610X-101-101	100	280882CH	4610X-101-392	3.9k	281092CH	4610X-101-154	150k
280680CH	4610X-101-121	120	280891CH	4610X-101-472	4.7k	281105CH	4610X-101-184	180k
280698CH	4610X-101-151	150	280903CH	4610X-101-512	5.1k	281113CH	4610X-101-224	220k
280701CH	4610X-101-181	180	280911CH	4610X-101-562	5.6k	281121CH	4610X-101-274	270k
280719CH	4610X-101-221	220	280920CH	4610X-101-682	6.8k	281130CH	4610X-101-334	330k
280727CH	4610X-101-271	270	280938CH	4610X-101-822	8.2k	281148CH	4610X-101-394	390k
280735CH	4610X-101-331	330	280946CH	4610X-101-103	10k	281156CH	4610X-101-474	470k
280743CH	4610X-101-391	390	280954CH	4610X-101-123	12k	281164CH	4610X-101-564	560k
280751CH	4610X-101-471	470	280962CH	4610X-101-153	15k	281172CH	4610X-101-684	680k
280760CH	4610X-101-511	510	280971CH	4610X-101-183	18k	281181CH	4610X-101-824	820k
280778CH	4610X-101-561	560	280989CH	4610X-101-203	20k	281199CH	4610X-101-105	1.0M



- Miniature, high density packaging
- Operating temperature range: -55°C to +125°C
- Temperature coefficient range: ±100ppm/°C: 50Ω – 1.0MΩ; ±250ppm/°C: <50Ω or >1.0M
- Rating ambient temperature: +70°C
- Wattage/element: 1/8 Watt
- Max. working voltage: 100V
- Prepackaged: order in increments of 10, 100, 500 or 1000

## 6-Pin Resistor Network Pricing

Qty.	10	100	500	1000
Price	\$ .14	\$.085	\$.076	\$.071

## 8-Pin Resistor Network Pricing

Qty.	10	100	500	1000
Price	\$ .19	\$.122	\$.114	\$.105

## 10-Pin Resistor Network Pricing

Qty.	10	100	500	1000
Price	\$ .23	\$.16	\$.14	\$.13

## 0805 Resistor Assortment (±5%)

144 Values, 50 pcs. each; 7,200 Pieces Total



## Resistance Value Chart:

1.2	10	75	430	2.0k	10k	51k	270k	2.2M
1.6	16	85	470	2.2k	11k	56k	300k	2.4M
2.2	18	91	510	2.4k	12k	62k	360k	2.7M
2.4	20	110	560	2.7k	13k	68k	390k	3.0M
2.7	22	120	620	3.0k	15k	75k	430k	3.3M
3.0	24	130	680	3.3k	16k	82k	470k	3.6M
3.3	27	150	750	3.6k	18k	91k	510k	3.9M
3.6	30	160	820	3.9k	20k	100k	560k	4.3M
4.0	33	180	910	4.3k	22k	110k	620k	4.7M
4.3	36	200	1.0k	4.7k	24k	120k	750k	5.1M
4.7	39	220	1.1k	5.0k	27k	150k	820k	5.6M
5.0	43	240	1.2k	5.6k	30k	160k	910k	6.8M
5.6	47	270	1.3k	6.2k	33k	180k	1.0M	7.5M
6.2	51	300	1.5k	6.8k	36k	200k	1.1M	8.2M
6.8	56	330	1.6k	7.5k	39k	220k	1.2M	9.1M
7.5	62	360	1.8k	8.2k	43k	240k	2.0M	10M
8.2	68	390	2.0k	9.1k	47k	270k	2.2M	11M

- Size (mm): 2.0L x 1.25W x 0.5Thick
- Max. overload voltage: 200V
- 1/8 watts
- Operating temperature: -50°C to 120°C
- Case size (two cases): 10.5"L x 6.7"W x 1.7"T
- Weight: 1.9 lbs.

Includes: Case with labels

Part No.	Mfr. Cross Ref. No.	1	10	25
172806CH	16-500	\$79.95	\$71.95	\$64.79

## 1206 Resistor Assortment (±1%)

56 Values, 200 pcs. each; 11,200 pcs. Total



## Value Chart (Ohms)

10	200	3.92k	75k
12.1	243	4.99k	90.9k
15	301	6.19k	100k
20	392	7.5k	121k
24.3	499	9.09k	150k
30.1	619	10k	200k
39.2	750	12.1k	243k
49.9	909	15k	301k
61.9	1k	20k	392k
75	1.21k	24.3k	99k
90.9	1.5k	30.1k	121k
100	2k	39.2k	150k
121	2.43k	49.9k	200k
150	3.01k	61.9k	243k

- Max. working voltage: 200V
- Power: 1/8W
- Operating temperature: -55°C to +125°C
- Temp. coefficient: ±100 ppm/°C
- Resistor dimensions (mm): 3.10L x 1.5 W x 0.55H

Part No.	Mfr. Cross Ref. No.	1	10	25
156881CH	SMR1206SB	\$99.99	\$89.99	\$79.99

# Potentiometers – 24mm Linear and Audio Taper



## 1/2-Watt Linear Taper (±10%)

- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.50"
- Maximum panel thickness: 0.1875"

A Jameco  
EXCLUSIVE



29081CH

Includes: Mounting hardware

Qty.	1	10	100	500
Price	\$ .99	\$ .79	\$ .65	\$ .55

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
29049CH	P1K	1k	29102CH	P100K	100k
29196CH	P5K	5k	29065CH	P1MEG	1M
29081CH	P10K	10k			



## RV4N Style 2-Watt Linear Taper (±10%)

- Shaft diameter: 0.25"
- Shaft length: 0.875"
- 2W @ 70°C ambient
- Conductive plastic element
- Temp. range: -55°C to +120°C
- Non-rotational key
- Mounting hole: 0.375"
- Maximum panel thickness: 0.25"



95417CH

Includes: Mounting hardware

Qty.	1	10	25	50
Price	\$7.39	\$6.54	\$5.45	\$4.51

Part No.	Product No.	Military No.	Ohms
241550CH	53C3-50	RV4NAYSD500A	50
241568CH	53C3-100	RV4NAYSD101A	100
241576CH	53C3-150	RV4NAYSD151A	150
241584CH	53C3-250	RV4NAYSD251A	250
241592CH	53C3-350	RV4NAYSD351A	350
183610CH	53C3-500	RV4NAYSD501A	500
13936CH	53C3-1k	RV4NAYSD102A	1k
241605CH	53C3-1.5k	RV4NAYSD152A	1.5k
241613CH	53C3-2k	RV4NAYSD202A	2k
241621CH	53C3-2.5k	RV4NAYSD252A	2.5k
241630CH	53C3-3.5k	RV4NAYSD352A	3.5k
13995CH	53C3-5k	RV4NAYSD502A	5k
13952CH	53C3-10k	RV4NAYSD103A	10k
241648CH	53C3-15k	RV4NAYSD153A	15k
241656CH	53C3-20k	RV4NAYSD203A	20k
241664CH	53C3-25k	RV4NAYSD253A	25k
95417CH	53C3-50k	RV4NAYSD503A	50k
13979CH	53C3-100k	RV4NAYSD104A	100k
241672CH	53C3-150k	RV4NAYSD154A	150k
241681CH	53C3-250k	RV4NAYSD254A	250k
241699CH	53C3-350k	RV4NAYSD354A	350k
241701CH	53C3-500k	RV4NAYSD504A	500k
241710CH	53C3-750k	RV4NAYSD754A	750k
241728CH	53C3-1Meg	RV4NAYSD105A	1M
241736CH	53C3-2Meg	RV4NAYSD205A	2M
286942CH	53C3-3Meg	RV4NAYSD305A	3M

## We're Listening to Your Requests

Email us 24/7 at  
NewProducts@Jameco.com  
with suggestions for products you'd  
like to see in future catalogs.



## 1/2-Watt 24mm Linear Taper (±20%)



255476CH



264372CH



255610CH

- Maximum voltage: 500V
- Rotational angle: 300° (±5°)
- Withstanding voltage for 1 minute: 500VAC

### 0.335" L shaft; solder lugs

Qty.	1	10	100	500
Price	\$1.19	\$ .91	\$ .83	\$ .76

Part No.	Product No.	Ohms
255476CH	RV24A-10-15R1-B500	500
255484CH	RV24A-10-15R1-B1K	1k
255492CH	RV24A-10-15R1-B2K	2k
255505CH	RV21A-10-15R1-B2.5K	2.5k
255513CH	RV24A-10-15R1-B5K	5k
255521CH	RV24A-10-15R1-B10K	10k
255530CH	RV24A-10-15R1-B25K	25k
255548CH	RV24A-10-15R1-B50K	50k
255556CH	RV24A-10-15R1-B100K	100k
255564CH	RV24A-10-15R1-B250K	250k
255572CH	RV24A-10-15R1-B500K	500k
255581CH	RV24A-10-15R1-B1M	1M
255599CH	RV24A-10-15R1-B2M	2M
255601CH	RV24A-10-15R1-B5M	5M

### 0.531" L knurled shaft; solder lugs

Qty.	1	10	100	500
Price	\$1.19	\$ .91	\$ .83	\$ .76

Part No.	Product No.	Ohms
264372CH	RV24A-10-20K-B500	500
264381CH	RV24A-10-20K-B1K	1k
264399CH	RV24A-10-20K-B2K	2k
264401CH	RV24A-10-20K-B5K	5k
264410CH	RV24A-10-20K-B10K	10k
264428CH	RV24A-10-20K-B50K	50k
264436CH	RV24A-10-20K-B100K	100k
264444CH	RV24A-10-20K-B250K	250k
264452CH	RV24A-10-20K-B500K	500k
264461CH	RV24A-10-20K-B1M	1M
264479CH	RV24A-10-20K-B2M	2M

### 1.32" L shaft; solder lugs

Qty.	1	10	100	500
Price	\$1.13	\$ .95	\$ .86	\$ .79

Part No.	Product No.	Ohms
255610CH	RV24A-10-40R1-B500	500
255628CH	RV24A-10-40R1-B1K	1k
255636CH	RV24A-10-40R1-B2K	2k
255644CH	RV24A-10-40R1-B2.5K	2.5k
255652CH	RV24A-10-40R1-B5K	5k
255661CH	RV24A-10-40R1-B10K	10k
255679CH	RV24A-10-40R1-B25K	25k
255687CH	RV24A-10-40R1-B50K	50k
255695CH	RV24A-10-40R1-B100K	100k
255708CH	RV24A-10-40R1-B250K	250k
255716CH	RV24A-10-40R1-B500K	500k
255724CH	RV24A-10-40R1-B1M	1M
255732CH	RV24A-10-40R1-B5M	5M



## 1/2-Watt 24mm Linear Taper with SPST Switch (±20%)

- Shaft length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs
- Maximum voltage: 500V
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)



263759CH

Qty.	1	10	100	500
Price	\$1.59	\$1.36	\$1.24	\$1.13

Part No.	Product No.	Ohms
263759CH	RV24A01-10-15R1-B500	500
263767CH	RV24A01-10-15R1-B1K	1k
263775CH	RV24A01-10-15R1-B2.5K	2.5k
263783CH	RV24A01-10-15R1-B5K	5k
263791CH	RV24A01-10-15R1-B10K	10k
263804CH	RV24A01-10-15R1-B25K	25k
263812CH	RV24A01-10-15R1-B50K	50k
263821CH	RV24A01-10-15R1-B100K	100k
263839CH	RV24A01-10-15R1-B250K	250k
263847CH	RV24A01-10-15R1-B500K	500k
263855CH	RV24A01-10-15R1-B1M	1M



## 1/4-Watt 24mm Audio Taper (±20%)

- Shaft length: 0.335"
- Maximum voltage: 250V
- Shaft diameter: .250"
- Terminal type: solder lugs
- Insulation resistance: >100MΩ @ 500VDC
- Rotational angle: 300° (±5°)



255396CH

Qty.	1	10	100	500
Price	\$1.19	\$ .91	\$ .83	\$ .76

Part No.	Product No.	Ohms
255396CH	RV24A-10-15R1-A1K	1k
255417CH	RV24A-10-15R1-A5K	5k
255425CH	RV24A-10-15R1-A10K	10k
255433CH	RV24A-10-15R1-A50K	50k
255441CH	RV24A-10-15R1-A100K	100k
255450CH	RV24A-10-15R1-A500K	500k
255468CH	RV24A-10-15R1-A1M	1M



## 1/4-Watt 24mm Audio Taper with SPST Switch (±20%)

- Shaft length: 0.590"
- Voltage rating: 250V
- Shaft diameter: .250"
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)



263601CH

Qty.	1	10	100	500
Price	\$1.59	\$1.36	\$1.24	\$1.13

Part No.	Product No.	Ohms
263601CH	RV24A01-10-15R1-A1K	1k
263610CH	RV24A01-10-15R1-A5K	5k
263636CH	RV24A01-10-15R1-A10K	10k
263644CH	RV24A01-10-15R1-A50K	50k
263652CH	RV24A01-10-15R1-A100K	100k
263661CH	RV24A01-10-15R1-A500K	500k
263679CH	RV24A01-10-15R1-A1M	1M

**Instrumentation  
Knobs**  
See page 145





## 1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"L
- Rated voltage: 200V
- Shaft diameter: .250"
- Total rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Center detent
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$1.35	\$1.13	\$1.04	\$ .94

Part No.	Product No.	Ohms
286352CH	RV16A-10-15R1-B1K-OC	1k
286361CH	RV16A-10-15R1-B2K-OC	2k
286379CH	RV16A-10-15R1-B5K-OC	5k
286387CH	RV16A-10-15R1-B10K-OC	10k
286395CH	RV16A-10-15R1-B25K-OC	25k
286408CH	RV16A-10-15R1-B50K-OC	50k
286416CH	RV16A-10-15R1-B100K-OC	100k
286424CH	RV16A-10-15R1-B250K-OC	250k
286432CH	RV16A-10-15R1-B500K-OC	500k
286441CH	RV16A-10-15R1-B1M-OC	1M



## 1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Insulation resistance: >100MΩ @ 500VDC
- 11-detent position
- Withstanding voltage: 500VAC, 1 minute



Qty.	1	10	100	500
Price	\$1.65	\$1.38	\$1.25	\$1.13

Part No.	Product No.	Ohms
286459CH	RV16A-10-15R1-B1K-OD	1k
286467CH	RV16A-10-15R1-B2K-OD	2k
286475CH	RV16A-10-15R1-B5K-OD	5k
286483CH	RV16A-10-15R1-B10K-OD	10k
286491CH	RV16A-10-15R1-B25K-OD	25k
286504CH	RV16A-10-15R1-B50K-OD	50k
286512CH	RV16A-10-15R1-B100K-OD	100k
286521CH	RV16A-10-15R1-B250K-OD	250k
286539CH	RV16A-10-15R1-B500K-OD	500k
286547CH	RV16A-10-15R1-B1M-OD	1M



## 1/5-Watt 16mm Linear Taper with DPDT Switch (±20%)

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Terminal type: solder lugs
- Switch rating: 0.3A; 30VDC
- Rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Dielectric strength: 500VAC for 1 minute



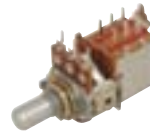
Qty.	1	10	100	500
Price	\$3.55	\$2.96	\$2.70	\$2.45

Part No.	Product No.	Ohms
286660CH	RV16B-10-15R1-B1K	1k
286678CH	RV16B-10-15R1-B5K	5k
286686CH	RV16B-10-15R1-B10K	10k
286694CH	RV16B-10-15R1-B50K	50k
286707CH	RV16B-10-15R1-B100K	100k



## 1/5-Watt 16mm Linear Taper with DPDT Switch (±20%)

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Terminal type: PC terminals (horizontal)
- Switch rating: 0.3A; 30VDC
- Rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Dielectric strength: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$3.55	\$2.96	\$2.70	\$2.45

Part No.	Product No.	Ohms
286731CH	RV16B-20-15R1-B10K	10k
286740CH	RV16B-20-15R1-B50K	50k
286758CH	RV16B-20-15R1-B100K	100k



## 1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotation angle: 300° (±5°)
- Rotational life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$1.15	\$1.00	\$ .87	\$ .80

Part No.	Product No.	Ohms
286248CH	RV16A-10-15R1-B1K	1k
286256CH	RV16A-10-15R1-B2K	2k
286264CH	RV16A-10-15R1-B5K	5k
286272CH	RV16A-10-15R1-B10K	10k
286281CH	RV16A-10-15R1-B25K	25k
286299CH	RV16A-10-15R1-B50K	50k
286301CH	RV16A-10-15R1-B100K	100k
286310CH	RV16A-10-15R1-B250K	250k
286328CH	RV16A-10-15R1-B500K	500k
286336CH	RV16A-10-15R1-B1M	1M
286344CH	RV16A-10-15R1-B1.2M	1.2M



## 1/5-Watt 16mm Linear Taper with SPST Switch (±20%)

- Shaft Length: 0.374"
- Rated voltage: 200V
- Shaft diameter: .250"
- Terminal type: PC terminal (vertical; back)
- Total rotation angle: 270° (±5°)
- Rotation life: 100,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Switch contact resistance: <100mΩ
- Switch rating: 250VAC 10A



Qty.	1	10	100	500
Price	\$2.25	\$1.90	\$1.73	\$1.57

Part No.	Product No.	Ohms
286766CH	RV16C-40-16F1-B5K	5k
286774CH	RV16C-40-16F1-B10K	10k
286782CH	RV16C-40-16F1-B50K	50k
286791CH	RV16C-40-16F1-B500K	500k



## 1/8-Watt 16mm Linear Taper

- Shaft length: 0.531"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Rotational noise: 47mV
- Insulation resistance: >100MΩ @ 500VDC
- Tolerance: <1MΩ (±20%); ≥1MΩ (±30%)
- Dielectric strength: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$1.19	\$1.00	\$ .83	\$ .70

Part No.	Product No.	Ohms
286061CH	RV16A-10-20R1-B1K	1k
286184CH	RV16A-10-20R1-B2K	2k
286192CH	RV16A-10-20R1-B5K	5k
286205CH	RV16A-10-20R1-B10K	10k
286213CH	RV16A-10-20R1-B50K	50k
286854CH	RV16A-10-20R1-B100K	100k
286221CH	RV16A-10-20R1-B500K	500k
286230CH	RV16A-10-20R1-B1M	1M



## 1/8-Watt 16mm Linear Taper with SPST Switch (±20%)

- Shaft Length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs double row
- Rated voltage: 200V
- Total rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute
- Switch contact resistance: 20mΩ
- Switch rating: 12VDC/1A



Qty.	1	10	100	500
Price	\$1.95	\$1.62	\$1.47	\$1.34

Part No.	Product No.	Ohms
286598CH	RV16A03-10-15R1-B1K	1k
286601CH	RV16A03-10-15R1-B5K	5k
286619CH	RV16A03-10-15R1-B10K	10k
286627CH	RV16A03-10-15R1-B50K	50k
286635CH	RV16A03-10-15R1-B100K	100k
286643CH	RV16A03-10-15R1-B500K	500k
286651CH	RV16A03-10-15R1-B1M	1M



## 1/10-Watt 16mm Audio Taper (±20%)

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Rotational life: 15,000 cycles
- Rotational noise: 47mV
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute
- 11-detent positions



Qty.	1	10	100	500
Price	\$1.65	\$1.38	\$1.25	\$1.13

Part No.	Product No.	Ohms
286555CH	RV16A-10-15R1-A10K-OD	10k
286563CH	RV16A-10-15R1-A50K-OD	50k
286571CH	RV16A-10-15R1-A100K-OD	100k
286580CH	RV16A-10-15R1-A1M-OD	1M



## 75

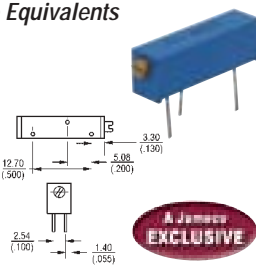
# Potentiometers – Multi-Turn Trimming



## 3/4-Watt, 3/4" Rectangular, 15-Turn Cermet Potentiometer Side Adjustment ( $\pm 10\%$ )

### 3006P Series Value Equivalents

- Low PC board profile
- Temperature range: -55°C to 125°C
- Absolute minimum resistance: 1% or 2 $\Omega$
- Contact resistance variation: 1% or 1 $\Omega$  maximum
- Power rating: 0.75W @ 70°C (400V maximum)



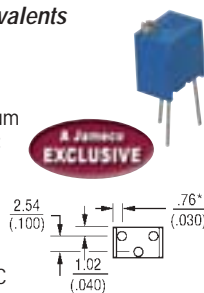
Qty.	1	10	50	100
Price	\$1.25	\$1.15	\$ .99	\$ .89

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
241234CH	3006P-101	100	241314CH	3006P-253	25k
241242CH	3006P-201	200	241322CH	3006P-503	50k
241251CH	3006P-501	500	241331CH	3006P-104	100k
241269CH	3006P-102	1k	241349CH	3006P-204	200k
241277CH	3006P-202	2k	241357CH	3006P-254	250k
241285CH	3006P-502	5k	241365CH	3006P-504	500k
241293CH	3006P-103	10k	241373CH	3006P-105	1M
241306CH	3006P-203	20k			

## 1/4-Watt, 1/4" Square Trimming Potentiometers, Top Adjustment ( $\pm 10\%$ )

### 3266W Series Value Equivalents

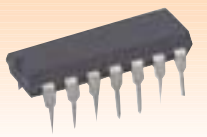
- Resistance tolerance:  $\pm 10\%$
- 12-turns nominal
- Insulation resistance: (500VDC) 1,000M $\Omega$  minimum
- Contact resistance variation: 3% or 3 $\Omega$  maximum (whichever is greater)
- Absolute min. resistance: 1% or 2 $\Omega$  maximum (whichever is greater)
- Power rating: 0.25W @ 70°C (300V maximum)



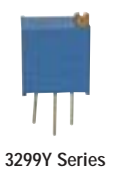
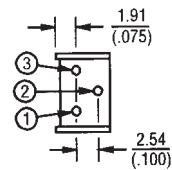
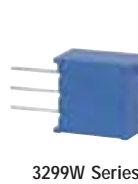
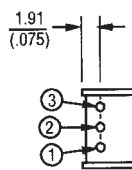
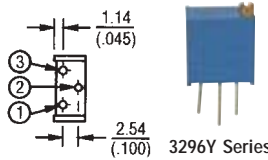
Qty.	1	10	50	100
Price	\$2.29	\$1.99	\$1.93	\$1.83

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
254609CH	3266W-500	50	254684CH	3266W-203	20k
254617CH	3266W-101	100	254692CH	3266W-253	25k
254625CH	3266W-201	200	254705CH	3266W-503	50k
254633CH	3266W-501	500	254713CH	3266W-104	100k
254641CH	3266W-102	1k	254721CH	3266W-204	200k
254650CH	3266W-202	2k	254730CH	3266W-504	500k
254668CH	3266W-502	5k	254748CH	3266W-105	1M
254676CH	3266W-103	10k			

See page 43 for Digital Potentiometers.



## 1/2-Watt, 3/8" Square, Multi-Turn Trimming Potentiometers, Top Adjustment ( $\pm 10\%$ )



### 3296Y, 3299W, and 3299Y Series

- Resistance tolerance:  $\pm 10\%$
- Insulation resistance: (500VDC) 1000M $\Omega$  min.
- Absolute minimum resistance: 1% or 2 $\Omega$  max.

- 25-turns nominal
- Contact resistance variation: 1% or 3 $\Omega$  max.
- Power rating: 0.5W @ 70°C (300V max.)

### Attention Budget-Minded Buyers!

Jameco now offers high-quality Bourns® equivalents below, and they're priced to save you money. You'll get consistent form, fit and function, without paying the added surcharge for brand name components.

### Jameco ValuePro 3296Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$1.89	\$1.69	\$1.49	\$1.35

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240696CH	3296Y-100	10	240784CH	3296Y-103	10k
240709CH	3296Y-200	20	240792CH	3296Y-203	20k
240717CH	3296Y-500	50	240805CH	3296Y-253	25k
240725CH	3296Y-101	100	240813CH	3296Y-503	50k
240733CH	3296Y-201	200	240821CH	3296Y-104	100k
240741CH	3296Y-501	500	240830CH	3296Y-254	250k
240750CH	3296Y-102	1k	240848CH	3296Y-504	500k
240768CH	3296Y-202	2k	240856CH	3296Y-105	1M
240776CH	3296Y-502	5k	240864CH	3296Y-205	2M

### Jameco ValuePro 3299W – In-Line Solder Pins

Qty.	1	10	50	100
Price	\$2.09	\$1.99	\$1.75	\$1.55

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
241058CH	3299W-100	10	241146CH	3299W-103	10k
241066CH	3299W-200	20	241154CH	3299W-203	20k
241074CH	3299W-500	50	241162CH	3299W-253	25k
241082CH	3299W-101	100	241171CH	3299W-503	50k
241091CH	3299W-201	200	241189CH	3299W-104	100k
241103CH	3299W-501	500	241197CH	3299W-254	250k
241111CH	3299W-102	1k	241200CH	3299W-504	500k
241120CH	3299W-202	2k	241218CH	3299W-105	1M
241138CH	3299W-502	5k	241226CH	3299W-205	2M

### Jameco ValuePro 3299Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$2.09	\$1.99	\$1.75	\$1.55

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240872CH	3299Y-100	10	240961CH	3299Y-103	10k
240881CH	3299Y-200	20	240979CH	3299Y-203	20k
240899CH	3299Y-500	50	240987CH	3299Y-253	25k
240901CH	3299Y-101	100	240995CH	3299Y-503	50k
240910CH	3299Y-201	200	241003CH	3299Y-104	100k
240917CH	3299Y-501	500	241015CH	3299Y-254	250k
240925CH	3299Y-102	1k	241023CH	3299Y-504	500k
240933CH	3299Y-202	2k	241031CH	3299Y-105	1M
240941CH	3299Y-502	5k	241040CH	3299Y-205	2M

### Bourns® Potentiometers

Jameco now offers a broad selection of industry-renowned Bourns multi-turn potentiometers below. They're ideal for integration into devices requiring high-precision pots.

### Bourns 3296Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$2.05	\$1.89	\$1.66	\$1.49

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240338CH	3296Y-1-100	10	240426CH	3296Y-1-103	10k
240346CH	3296Y-1-200	20	240434CH	3296Y-1-203	20k
240354CH	3296Y-1-500	50	240442CH	3296Y-1-253	25k
240362CH	3296Y-1-101	100	240451CH	3296Y-1-503	50k
240371CH	3296Y-1-201	200	240469CH	3296Y-1-104	100k
240389CH	3296Y-1-501	500	240477CH	3296Y-1-254	250k
240397CH	3296Y-1-102	1k	240485CH	3296Y-1-504	500k
240400CH	3296Y-1-202	2k	240493CH	3296Y-1-105	1M
240418CH	3296Y-1-502	5k	240506CH	3296Y-1-205	2M

### Bourns 3299W – In-Line Solder Pins

Qty.	1	10	50	100
Price	\$2.39	\$2.25	\$1.99	\$1.79

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
238553CH	3299W-1-100	10	183564CH	3299W-1-103	10k
238561CH	3299W-1-200	20	238633CH	3299W-1-203	20k
238570CH	3299W-1-500	50	238641CH	3299W-1-253	25k
238588CH	3299W-1-101	100	238650CH	3299W-1-503	50k
238596CH	3299W-1-201	200	183572CH	3299W-1-104	100k
238609CH	3299W-1-501	500	238668CH	3299W-1-254	250k
183556CH	3299W-1-102	1k	238676CH	3299W-1-504	500k
238617CH	3299W-1-202	2k	238684CH	3299W-1-105	1M
238625CH	3299W-1-502	5k	238692CH	3299W-1-205	2M

### Bourns 3299Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$2.39	\$2.19	\$1.79	\$1.59

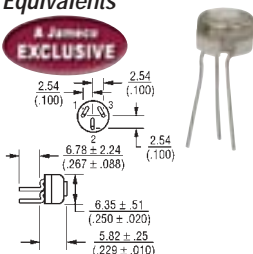
Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240514CH	3299Y-1-100	10	240602CH	3299Y-1-103	10k
240522CH	3299Y-1-200	20	240611CH	3299Y-1-203	20k
240531CH	3299Y-1-500	50	240629CH	3299Y-1-253	25k
240549CH	3299Y-1-101	100	240637CH	3299Y-1-503	50k
240557CH	3299Y-1-201	200	240645CH	3299Y-1-104	100k
240565CH	3299Y-1-501	500	240653CH	3299Y-1-254	250k
240573CH	3299Y-1-102	1k	240661CH	3299Y-1-504	500k
240581CH	3299Y-1-202	2k	240670CH	3299Y-1-105	1M
240590CH	3299Y-1-502	5k	240688CH	3299Y-1-205	2M

Visit us on the web at [www.Jameco.com](http://www.Jameco.com)

**JAMECO**  
ValuePro  
**1/2-Watt, 1/4" Round, Cermet Potentiometers Top Adjustment (±10%)**

### 3329P Series Value Equivalents

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C
- T0-5 grid
- Terminals: solderable pins



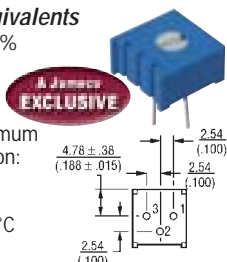
Qty.	1	10	50	100
Price	\$1.69	\$1.53	\$1.29	\$1.21

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
254457CH	3329P-500	50	254537CH	3329P-203	20k
254465CH	3329P-101	100	254545CH	3329P-253	25k
254473CH	3329P-201	200	254553CH	3329P-503	50k
254481CH	3329P-501	500	254561CH	3329P-104	100k
254490CH	3329P-102	1k	254570CH	3329P-204	200k
254502CH	3329P-202	2k	254588CH	3329P-504	500k
254511CH	3329P-502	5k	254596CH	3329P-105	1M
254529CH	3329P-103	10k			

**JAMECO**  
ValuePro  
**1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Top Adjustment (±10%)**

### 3386P Series Value Equivalents

- Resistance tolerance: ±10%
- Absolute minimum resistance: 2Ω maximum
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 85°C (300V maximum)



Qty.	1	10	50	100
Price	\$ .85	\$ .76	\$ .67	\$ .64

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
254289CH	3386P-500	50	254377CH	3386P-253	25k
254297CH	3386P-101	100	254385CH	3386P-503	50k
254300CH	3386P-201	200	254393CH	3386P-104	100k
254318CH	3386P-501	500	254406CH	3386P-204	200k
254326CH	3386P-102	1k	254414CH	3386P-254	250k
254334CH	3386P-202	2k	254422CH	3386P-504	500k
254342CH	3386P-502	5k	254431CH	3386P-105	1M
254351CH	3386P-103	10k	254449CH	3386P-205	2M
254369CH	3386P-203	20k			

**JAMECO**  
ValuePro  
**1/2-Watt, 3/8" Round, Single-Turn Cermet Potentiometers Top Adjustment (±20%)**

### 3352T Series Value Equivalents

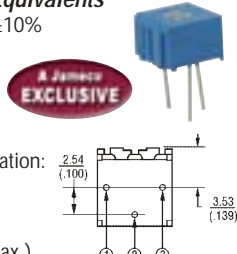
- Very low profile
- Thumb and screwdriver adjustment
- Temperature range: -55°C to +125°C
- Power rating: 0.5W@85°C (250V max.)
- Absolute minimum resistance: 2Ω max.
- Contact resistance variation: 1% or 1Ω max. whichever is greater
- Adjustment angle: 205° nominal



**JAMECO**  
ValuePro  
**1/2-Watt, 1/4" Square, Single-Turn Cermet Potentiometers Top Adjustment (±10%)**

### 3362P Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ
- Absolute minimum resistance: 1% or 2Ω (whichever is greater)
- Contact resistance variation: 1% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 70°C (300V max.)



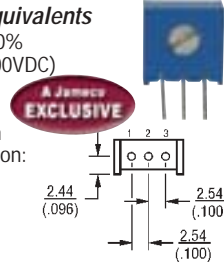
Qty.	1	10	50	100
Price	\$ .59	\$ .55	\$ .45	\$ .42

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
253964CH	3362P-101	100	254001CH	3362P-203	20k
253972CH	3362P-201	200	254019CH	3362P-253	25k
254078CH	3362P-501	500	254027CH	3362P-503	50k
253981CH	3362P-102	1k	254035CH	3362P-104	100k
253999CH	3362P-202	2k	254107CH	3362P-204	200k
254086CH	3362P-502	5k	254043CH	3362P-504	500k
254094CH	3362P-103	10k	254115CH	3362P-105	1M

**JAMECO**  
ValuePro  
**1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Side Adjustment (±10%)**

### 3386W Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Absolute minimum resistance: 2Ω maximum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Adjustment angle: 280° nominal



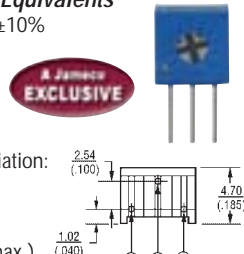
Qty.	1	10	50	100
Price	\$ .89	\$ .79	\$ .69	\$ .65

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
241381CH	3386W-500	50	241470CH	3386W-253	25k
241390CH	3386W-101	100	241488CH	3386W-503	50k
241402CH	3386W-201	200	241496CH	3386W-104	100k
241411CH	3386W-501	500	241509CH	3386W-204	200k
241429CH	3386W-102	1k	241517CH	3386W-254	250k
241437CH	3386W-202	2k	241525CH	3386W-504	500k
241445CH	3386W-502	5k	241533CH	3386W-105	1M
241453CH	3386W-103	10k	241541CH	3386W-205	2M
241461CH	3386W-203	20k			

**JAMECO**  
ValuePro  
**1/2-Watt, 1/4" Square, Single-Turn Cermet Potentiometers Side Adjustment (±10%)**

### 3362W Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ
- Absolute minimum resistance: 1% or 2Ω (whichever is greater)
- Contact resistance variation: 1% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 70°C (300V max.)



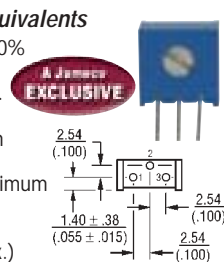
Qty.	1	10	50	100
Price	\$ .59	\$ .54	\$ .45	\$ .41

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
254140CH	3362W-101	100	254211CH	3362W-203	20k
254158CH	3362W-201	200	254220CH	3362W-253	25k
254166CH	3362W-501	500	254238CH	3362W-503	50k
254174CH	3362W-102	1k	254246CH	3362W-104	100k
254182CH	3362W-202	2k	254254CH	3362W-204	200k
254191CH	3362W-502	5k	254262CH	3362W-504	500k
254203CH	3362W-103	10k	254271CH	3362W-105	1M

**JAMECO**  
ValuePro  
**1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Side Adjustment (±10%)**

### 3386X Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ min.
- Absolute minimum resistance: 2Ω maximum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 85°C (300V max.)



Qty.	1	10	50	100
Price	\$ .85	\$ .76	\$ .67	\$ .64

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
264604CH	3386X-500	50	264698CH	3386X-253	25k
264612CH	3386X-101	100	264701CH	3386X-503	50k
264621CH	3386X-201	200	264719CH	3386X-104	100k
264639CH	3386X-501	500	264727CH	3386X-204	200k
264647CH	3386X-102	1k	264735CH	3386X-254	250k
264655CH	3386X-202	2k	264743CH	3386X-504	500k
264663CH	3386X-502	5k	264751CH	3386X-105	1M
264671CH	3386X-103	10k	264760CH	3386X-205	2M
264680CH	3386X-203	20k			

## Commercial Customers

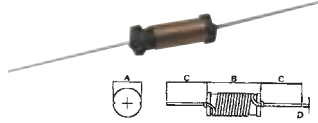
Open an account with us to consolidate your monthly billing and save time.



## Axial Leaded RF Chokes

### 4600 Series

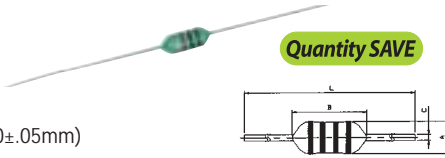
- Inductive tolerance: 10%
- Operating temperature: -55°C to +125°C
- Size: A = 6.8mm max.; B = 19.0mm max.  
C = 25.0±2.0mm; D = 0.65±0.5mm



Part No.	Mfr. Cross Ref. No.	L (μH)	Q (min.)	Res. Freq Min. (MHz)	DCR Max. (μ)	Max. DC Current (mA)	Pricing		
							1	10	100
208063CH	4602	1.0	60	190	.050	2000	\$.69	\$.62	\$.55
208071CH	4604	1.5	58	149	.093	1800	.69	.62	.55
208080CH	4606	2.4	56	120	.190	1500	.69	.62	.55
208098CH	4608	3.9	60	93	.450	1000	.69	.62	.55
208101CH	4609	5.5	57	80	.670	850	.69	.62	.55
208119CH	4610	6.2	57	76	.830	700	.69	.62	.55
208127CH	4611	8.2	57	65	1.2	600	.69	.62	.55
208135CH	4612	10	36	61	1.5	500	.69	.62	.55

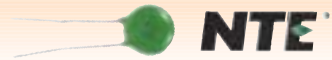
## Epoxy Conformal Coated Chokes

- Operating temperature: -25°C to +85°C
- Tolerance: 5%
- Size: A = 3.2mm max.  
B = 7.0mm max.  
C = 0.48±0.5mm  
(except P/N 208143CH: 0.50±0.05mm)  
D = 63±3mm



Part No.	L (μH)	Q (min.)	Test. Freq (MHz)	Res. Freq Min. (MHz)	DCR Max. (μ)	Max. DC Curr. (mA)	Pricing		
							1	10	100
208143CH	10	60	7.96	28.7	1.56	670	\$.49	\$.45	\$.39
208151CH	27	50	2.52	10.2	2.39	410	.49	.44	.33
208160CH	33	50	2.52	8.4	2.71	380	.49	.45	.39
208178CH	47	50	2.52	6.9	3.3	330	.49	.45	.39
208186CH	82	45	2.52	5.4	4.62	240	.49	.44	.40
208194CH	100	45	2.52	5.0	4.98	240	.49	.45	.39
208207CH	220	45	0.796	3.3	9.23	180	.49	.45	.39
208215CH	330	45	0.796	2.7	13.2	140	.49	.44	.40
208223CH	470	45	0.796	2.2	21.4	120	.49	.45	.39
208231CH	820	45	0.796	1.7	28.4	90	.49	.44	.33
208240CH	1000	45	0.796	1.5	31.3	80	.49	.45	.39

For more NTE Varistors see page 53.



## Thermistors

### NTC Thermistors

- Typical applications: temperature measurement/control/compensation; power supply fan control; PCB temperature monitoring
- Operating temperature range: -30°C ~ +130°C
- Maximum allowable power (@ 250°C): 0.55W
- Thermal dissipation factor: 6.5mW/°C (@ 250°C)
- Resistance value allowable difference: 10%

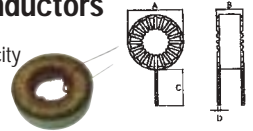
Quantity SAVE

Part No.	Mfr. Cross Ref. No.	Resistance (Ω @ 25°C)	B Constant (25/50°C >10%)	Temp. Coef. @ 25°C (%/°C)	Pricing			
					1	10	100	500
207520CH	NTC-101	100	3100	-3.5	\$.59	\$.49	\$.39	\$.32
207511CH	NTC-201	200	3100	-3.5	.59	.49	.40	.30
207503CH	NTC-301	300	3100	-3.5	.59	.49	.39	.32
207491CH	NTC-501	500	3100	-3.5	.59	.49	.39	.32
207482CH	NTC-102	1k	3800	-4.3	.59	.49	.39	.32
207474CH	NTC-202	2k	3800	-4.3	.59	.49	.39	.32
207466CH	NTC-302	3k	3900	-4.4	.59	.50	.40	.30
207458CH	NTC-402	4k	3900	-4.4	.59	.49	.39	.32
207440CH	NTC-502	5k	3900	-4.4	.59	.49	.39	.32
207036CH	NTC-103	10k	4100	-4.6	.59	.49	.39	.32
207028CH	NTC-153	15k	4100	-4.6	.59	.53	.48	.38
207010CH	NTC-203	20k	4200	-4.7	.59	.49	.39	.32
207001CH	NTC-503	50k	4200	-4.7	.59	.49	.39	.32
206990CH	NTC-104	100k	4400	-4.9	.59	.49	.39	.32
206981CH	NTC-204	200k	4500	-5.1	.59	.50	.40	.30

## High Current Toroid Inductors

### 5700 Series

- Low radiation • Low core loss • High current capacity
- Size: A = 22.22mm max.; B = 11.09mm max.  
C = 15.0±1.0mm; D = 1.2±0.5mm
- See page 178 for EMI suppression cores
- See technical datasheets on [www.Jameco.com](http://www.Jameco.com) for complete specifications



Part No.	Mfr. Cross Ref. No.	L (μH)	IDC max. (A)	L min. @ IDC	Pricing				
					1	10	25	50	100
208258CH	5701	10	11.0	5	\$3.99	\$3.05	\$2.74	\$2.26	\$2.06
208266CH	5702	25	5.5	12	3.99	3.05	2.74	2.26	2.06
208311CH	5711	50	9.5	25	4.95	4.46	3.79	3.03	2.27
208303CH	5707	75	5.0	40	4.35	3.75	3.37	2.78	2.53
208274CH	5703	125	2.75	70	3.99	3.05	2.74	2.26	2.06
208320CH	5712	150	4.75	85	4.35	3.75	3.37	2.78	2.53
208282CH	5704	275	2.0	150	3.99	3.05	2.74	2.26	2.06
208291CH	5705	450	1.5	250	4.35	3.28	2.95	2.44	2.21

## Varistors

### LA Series Varistors (Radial Lead)

- AC power line applications • Power supplies • High energy absorption
- UL recognized as "transient voltage surge suppressors"
- UL recognized as "across-the-line components"

LA Series		Size	Max. Ratings (+85°C)			Characteristics at 25°C		Pricing			
			Continuous RMS Disc.	DC Volt.	Transient Energy (10/100μs)	Max Clamping Volt. @ I <sub>PK</sub> Value Curr. (8/20μs)					
Part No.	Mfr. Cross Ref. No.	Dia. (mm)	V <sub>m(ac)</sub> Volts	V <sub>m(dc)</sub> Volts	W <sub>tm</sub> Joules	V Volts	I <sub>PK</sub> =2.0A Amps	1	10	100	500
34446CH	V130LA10A	14	130	175	38	340	50	\$.29	\$.25	\$.22	\$.20
34471CH	V250LA20A	14	250	330	72	650	50	.39	.35	.32	.30
34462CH	V130LA20A	20	130	175	70	340	100	.59	.56	.54	.52

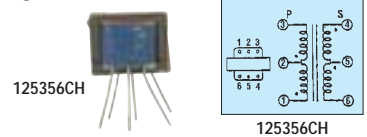
## 30-Day Money Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 258.

## Coupling Transformers

### Modem Coupling Transformers

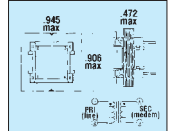
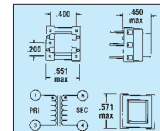
- Insulation resistance: 100MΩ
- Core type: EI-14
- Vacuum wax impregnated
- Hipot tested: 1000VAC
- ±20% impedance matching
- ±20% DC resistance matching



Part Number	Mfr. Cross Ref. No.	Impedance (Ω)		Resistance (Ω)		Pricing		
		Primary	Secondary	Primary	Secondary	1	10	100
125356CH	XFR6006A14	600CT	600CT	65	55	\$1.29	\$1.18	\$1.08
205962CH	60-282-0	1.2KCT	8	45	1.5	1.69	1.55	1.35

### Modem Coupling Transformers

141621CH



- Dielectric strength: 1250VAC
- Insertion Loss: 141621CH: 1.25dB@1kHz; 117760: 2.50dB@1kHz

Part Number	Mfr. Cross Ref. No.	Impedance (Ω)		Resistance (Ω)		Pricing		
		Primary	Secondary	Primary	Secondary	1	10	100
141621CH	671-8255	600	600	46.5	67.6	\$1.95	\$1.66	\$1.25
117760CH	671-8014	600	600	108	120	1.99	1.69	1.27

## Resettable Fuses

Resettable fuses improve reliability and lower costs. Polymer Positive Temperature Coefficient (PPTC) fuses have provided designers in numerous industries a new tool in their battle to improve product quality and performance. As PPTC fuses are resettable, warranty costs and service calls are largely avoided.

### RA Series

- Rated voltage: ( $V_{MAX}$ ): 60V
- Max. current: ( $I_{MAX}$ ): 40A
- Lead length (D): 7.6mm min.
- Thickness (E): 3.1mm min.

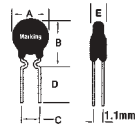


Fig. 1

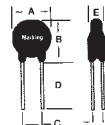


Fig. 2

Part No.	Mfr. Cross Ref. No.	Hold Curr. ( $I_H$ , A)	Trip Curr. ( $I_T$ , A)	Fig.	Size (mm)			Pricing			
					A	B	C	1	10	100	500
199814CH	RA010-60	0.10	0.20	1	7.4	12.7	5.1	.45	.41	.39	.31
199822CH	RA017-60	0.17	0.34	1	7.4	12.7	5.1	.45	.41	.39	.31
199831CH	RA020-60	0.20	0.40	1	7.4	12.2	5.1	.45	.41	.39	.31
199849CH	RA025-60	0.25	0.50	1	7.4	12.7	5.1	.45	.41	.39	.31
199857CH	RA030-60	0.30	0.60	1	7.4	13.0	5.1	.45	.41	.39	.31
199865CH	RA040-60	0.40	0.80	1	7.6	13.5	5.1	.49	.44	.41	.32
199873CH	RA050-60	0.50	1.00	1	7.9	13.7	5.1	.49	.46	.43	.32
199881CH	RA065-60	0.65	1.30	1	9.7	14.5	5.1	.50	.47	.43	.34
199890CH	RA075-60	0.75	1.50	1	10.4	15.2	5.1	.50	.47	.43	.34
199902CH	RA090-60	0.90	1.80	1	11.7	15.8	5.1	.52	.49	.45	.30
199911CH	RA110-60	1.10	2.20	2	13.0	18.0	5.1	.57	.55	.52	.40
199929CH	RA135-60	1.35	2.70	2	14.5	19.6	5.1	.58	.56	.53	.41
199937CH	RA160-60	1.60	3.20	2	16.3	21.3	5.1	.60	.57	.54	.42
199945CH	RA185-60	1.85	3.70	2	17.8	22.9	5.1	.59	.55	.55	.39
199953CH	RA250-60	2.50	5.00	2	21.3	26.4	10.2	.70	.63	.57	.49
199961CH	RA300-60	3.00	6.00	2	24.9	30.0	10.2	.74	.67	.60	.50
199970CH	RA375-60	3.75	7.50	2	28.5	33.5	10.2	.74	.67	.53	.40

### RB Series

- Rated voltage: ( $V_{MAX}$ ): 30V
- Max. current: ( $I_{MAX}$ ): 40A
- Lead length (D): 7.6mm min.
- Thickness (E): 3.0mm min.

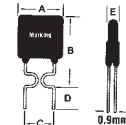


Fig. 3

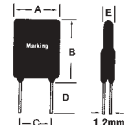


Fig. 4

Part No.	Mfr. Cross Ref. No.	Hold Curr. ( $I_H$ , A)	Trip Curr. ( $I_T$ , A)	Fig.	Size (mm)			Pricing			
					A	B	C	1	10	100	500
199988CH	RB090-30	0.90	1.80	3	7.4	12.2	5.1	.48	.43	.35	.26
199996CH	RB110-30	1.10	2.20	3	7.4	14.2	5.1	.48	.43	.39	.31
200002CH	RB135-30	1.35	2.70	3	8.9	13.5	5.1	.48	.46	.43	.34
200011CH	RB160-30	1.60	3.20	3	8.9	15.2	5.1	.45	.42	.39	.31
200029CH	RB185-30	1.85	3.70	3	10.2	15.7	5.1	.48	.43	.39	.32
200037CH	RB250-30	2.50	5.00	3	11.4	18.3	5.1	.52	.48	.43	.34
200045CH	RB300-30	3.00	6.00	4	11.4	17.3	5.1	.57	.52	.48	.37
200053CH	RB400-30	4.00	8.00	4	14.0	20.1	5.1	.62	.57	.52	.40
200061CH	RB500-30	5.00	10.00	4	14.0	24.9	10.2	.67	.60	.54	.44
200070CH	RB600-30	6.00	12.00	4	16.5	24.9	10.2	.73	.67	.61	.48
200088CH	RB700-30	7.00	14.00	4	19.1	26.7	10.2	.80	.73	.67	.52
200096CH	RB800-30	8.00	16.00	4	21.6	29.2	10.2	.87	.78	.63	.47
200109CH	RB900-30	9.00	18.00	4	24.1	29.7	10.2	.89	.79	.69	.59

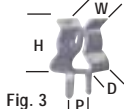
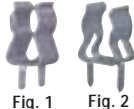


## Fuse Clips

- Low contact resistance
- Low profile
- Withstands shock and vibration

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	Fig.	Size (H" x W" x D" x P")	10	100	1000
102859CH	5mm, front leads	1	.37 x .25 x .21 x .19	.12	.09	.05
119280CH	5mm, side leads	2	.33 x .25 x .20 x .21	.09	.08	.07
102841CH	1/4", front leads (10A)	3	.32 x .27 x .25 x .23	.09	.08	.07
220732CH	5mm, front leads (10A)	3	.33 x .27 x .25 x .29	.15	.10	.07



## 1/4" x 1/4" Standard Fuses

### Fast Acting Fuses (250V) AGC/3AG Fuses

- Prepackaged: order in increments of 10, 100 or 1000

Part No.	Amps	Mfr.	10	100	1000
69403CH	250mA	Various	.20	.18	.16
10410CH	500mA	Various	.20	.18	.16
197510CH	630mA	Various	.20	.18	.16
10372CH	1 amp	Various	.20	.12	.11
197528CH	1.6 amp	Various	.20	.12	.11
10381CH	2 amp	Various	.20	.12	.11
197536CH	2.5 amp	Various	.21	.12	.09
69438CH	3 amp	Various	.20	.12	.11
197544CH	4 amp	Various	.22	.20	.18
10401CH	5 amp	Various	.22	.20	.18
197552CH	6.3 amp	Various	.22	.20	.18
69462CH	10 amp	Various	.25	.22	.20
186301CH	16 amp	Various	.25	.22	.20

### Slow Blow Fuses (250V) MDL/3AG Fuses

Part No.	Amps	Mfr.	1	10	100	1000
25654CH	250mA	Various	.75	.59	.50	.40
25689CH	500mA	Various	.69	.59	.50	.37
25638CH	1 amp	Various	.69	.59	.50	.37
25646CH	2 amp	Various	.55	.44	.34	.28
69534CH	3 amp	Various	.55	.44	.34	.28
25671CH	5 amp	Various	.55	.44	.34	.28
69569CH	10 amp	Various	.75	.65	.51	.40



## 5mm x 20mm Miniature Fuses

### Fast Acting Fuses (250V) GMA Fuses

- Recommended for new designs
- Prepackaged: order in increments of 10, 100, 500 or 1000

Part No.	Amps	Mfr.	10	100	500	1000
103886CH	250mA	Various	.20	.15	.11	.10
102040CH	500mA	Various	.20	.15	.11	.10
103907CH	1 amp	Various	.20	.15	.11	.10
103915CH	2 amp	Various	.20	.15	.11	.10
103923CH	3 amp	Various	.20	.15	.11	.10
103931CH	5 amp	Various	.20	.15	.11	.10

### Slow Blow Fuses (250V) GMA Fuses

- Prepackaged: order in increments of 10, 100 or 1000

Part No.	Amps	Mfr.	10	100	1000
197501CH	500mA	Various	.29	.26	.23
197464CH	1 amp	Various	.29	.26	.23
197472CH	2 amp	Various	.35	.32	.29
197481CH	3.15 amp	Various	.35	.32	.29
197499CH	5 amp	Various	.35	.32	.29

NTE Thermal Fuses  
See page 53.



## In-Line Fuse Holders

- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108783CH orange

### 1/4" x 1/4" Standard

Part No.	AWG	Wire Lgths	Body Size(L)	Body Color	1	10	100
109321CH	22	3.5/3"	2.4"	Black	.65	.58	.52
102867CH	20	3/3"	2.2"	White	.65	.58	.48
151917CH	18	6/6"	2.4"	White	.99	.85	.65
108783CH	16	21/26"	2.2"	Black	.99	.87	.68
108791CH	14	19/25"	2.5"	Black	1.59	1.45	1.05

### 5mm x 20mm Miniature

Part No.	AWG	Wire Color	Body Size (L)	1	10	100
109330CH	20	Red	1.8"	.69	.56	.45



## 5mm x 20mm Miniature Low Profile Fuse Holder

- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4"L x 0.6"Dia.
- D-style mounting hole: 1 ea. 0.5"Dia x .46" flat

Part No.	Description	1	10	100
102832CH	Fuse holder UL/CSA	\$1.95	\$1.79	\$1.59

## Crystals

- Frequency calibration tolerance:  $\pm 50\text{ppm}$  @  $25^{\circ}\text{C}$
- Operating temperature:  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- Drive level: 4.0 mW maximum
- Frequency stability tolerance:  $\pm 50\text{ppm}$  from  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- Shunt capacitance: 7pF maximum
- DN's demotes extended temp. ( $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ )

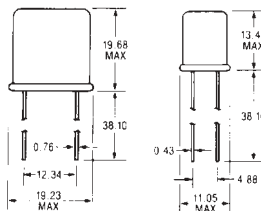
**NEW**

### HC33/U Case

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Pricing			
				1	10	100	1000
14349CH	CY1	1.0	13pF	\$4.95	\$4.49	\$3.95	\$3.49

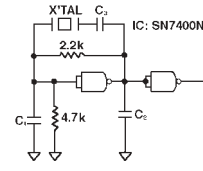
JAMECO	ValuePro	HC49/U (HC18/U) Case					
Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	1	10	100	1000
324224CH	ESC-18-13-1	1.8432	13pF	\$.95	\$.86	\$.82	\$.64
324283CH	ESC-20-S-1	2.0	Series	.94	.85	.82	.63
324275CH	ESC-20-20-1	2.0	20pF	.94	.85	.82	.63
324312CH	ESC-25-S-1	2.5	Series	.78	.71	.68	.53
324321CH	ESC-30-S-1	3.0	Series	.78	.71	.69	.53
324996CH	ESC-35-S-4	3.579545	Series	.36	.325	.31	.24
324347CH	ECS-36-18-1	3.6864	18pF	.31	.285	.275	.21
324988CH	ECS-36-18-4	3.6864	18pF	.36	.325	.31	.24
324970CH	ECS-36-20-4DN	3.6864	20pF	.62	.57	.50	.36
324363CH	ECS-40-S-1	4.0	Series	.31	.285	.275	.21
324945CH	ECS-40-S-4	4.0	Series	.36	.325	.31	.24
324961CH	ECS-40-20-4	4.0	20pF	.36	.325	.31	.24
324953CH	ECS-40-S-4DN	4.0	20pF	.62	.57	.50	.36
324355CH	ECS-40.3-20-1	4.032	20pF	.31	.285	.275	.21
324937CH	ECS-41-20-4	4.096	20pF	.36	.325	.31	.24
324371CH	ECS-42-12-1	4.194	12pF	.31	.285	.275	.21
324401CH	ECS-49-S-1	4.1952	Series	.31	.285	.275	.21
324380CH	ECS-49-20-1	4.9152	20pF	.31	.285	.275	.21
324427CH	ECS-50-S-1	5.0	Series	.31	.285	.275	.21
324911CH	ECS-50-S-4	5.0	Series	.36	.325	.31	.24
324419CH	ECS-50-20-1	5.0	20pF	.31	.285	.275	.21
324929CH	ECS-50-20-4	5.0	20pF	.36	.325	.31	.24
324435CH	ECS-51-20-1	5.0688	20pF	.31	.285	.275	.21
324902CH	ECS-51-20-4	5.0688	20pF	.36	.32	.31	.24
324443CH	ECS-52-32-1	5.185	32pF	.31	.285	.275	.21
324890CH	ECS-52-32-4	5.185	32pF	.36	.32	.31	.24
324460CH	ESC-60-S-1	6.0	Series	.31	.285	.275	.21
324865CH	ECS-60-S-4	6.0	Series	.36	.32	.31	.24
324451CH	ECS-60-32-1	6.0	32pF	.31	.285	.275	.21
324881CH	ECS-60-32-4	6.0	32pF	.36	.32	.31	.24
324873CH	ECS-60-32-4DN	6.0	32pF	.62	.57	.50	.36
324857CH	ECS-61-32-4	6.144	32pF	.36	.32	.31	.24
324849CH	ECS-65-20-4	6.5	20pF	.36	.32	.31	.24
324478CH	ECS-65-12-1	6.5536	12pF	.31	.285	.275	.21
324831CH	ECS-73-20-4	7.3728	20pF	.36	.32	.31	.24
324822CH	ECS-73-20-4DN	7.3728	20pF	.62	.57	.50	.36
324486CH	ECS-76.8-20-1	7.68	20pF	.31	.285	.275	.21
324814CH	ECS-76.8-20-4	7.68	20pF	.36	.32	.31	.24
324494CH	ECS-80-18-1	8.0	18pF	.45	.42	.27	.21
324806CH	ECS-80-18-4	8.0	18pF	.36	.32	.31	.24
324793CH	ECS-80-18-4DN	8.0	18pF	.57	.57	.50	.36
324507CH	ECS-80-20-1	8.0	20pF	.31	.285	.274	.21
324785CH	ECS-80-20-4	8.0	20pF	.36	.32	.31	.24
324515CH	ECS-80-32-1	8.0	32pF	.31	.285	.274	.21
324777CH	ECS-80-32-4	8.0	32pF	.36	.32	.31	.24
324769CH	ECS-90-S-4	9.0	Series	.36	.32	.31	.24
324531CH	ECS-92.1-S-1	9.216	Series	.31	.285	.274	.21
324742CH	ECS-92.1-S-4	9.216	Series	.36	.32	.31	.24

Dimensions in millimeters



HC33/U Case

HC49/U (HC18/U) Case



Application Reference (4-14MHz) (parallel resonance)

- C1: 150-470 pF
- C2: 220-820 pF
- C3: Match crystal impedance

JAMECO	ValuePro	HC49/U (HC18/U) Case (Continued)					
Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	1	10	100	1000
324523CH	ECS-92.1-20-1	9.216	20pF	\$.31	\$.285	\$.274	\$.21
324751CH	ECS-92.1-20-4	9.216	20pF	.45	.41	.31	.24
324734CH	ECS-98.3-20-4	9.8304	20pF	.36	.32	.31	.24
324540CH	ECS-98.3-20-1	9.9304	20pF	.31	.285	.274	.21
324128CH	ECS-110.5-S-1	11.0592	Series	.31	.284	.274	.211
325227CH	ECS-110.5-20-4	11.0592	20pF	.36	.325	.31	.24
324110CH	ECS-110.5-32-1	11.0592	32pF	.31	.284	.274	.211
325219CH	ECS-110.5-32-4	11.0592	32pF	.36	.325	.31	.24
324136CH	ECS-115.2-S-1	11.52	Series	.31	.284	.274	.211
324144CH	ECS-119.8-S-1	11.98135	Series	.31	.284	.274	.211
325201CH	ECS-120-20-4	12.0	20pF	.36	.325	.31	.26
325198CH	ECS-120-20-4DN	12.0	20pF	.62	.57	.50	.36
325180CH	ECS-120-32-4	12.0	32pF	.36	.325	.31	.24
324152CH	ECS-122.8-20-1	12.288	20pF	.31	.284	.274	.211
325171CH	ECS-122.8-20-4	12.288	20pF	.36	.325	.31	.24
324161CH	ECS-135-S-1	13.5168	Series	.31	.284	.274	.211
324179CH	ECS-143-S-1	14.31818	Series	.31	.28	.255	.21
324187CH	ECS-147.4-20-1	14.7456	20pF	.31	.284	.274	.211
324195CH	ECS-147.4-S-1	14.7456	Series	.31	.284	.274	.211
325155CH	ECS-147.4-S-4	14.7456	Series	.36	.325	.315	.24
325163CH	ECS-147.4-20-4	14.7456	20pF	.36	.325	.315	.24
325147CH	ECS-153-20-4	15.36	20pF	.36	.325	.315	.24
324208CH	ECS-160-20-1	16.0	20pF	.31	.284	.274	.211
325139CH	ECS-160-20-4	16.0	20pF	.36	.325	.315	.24
325121CH	ECS-160-20-4DN	16.0	20pF	.62	.57	.50	.36
324216CH	ECS-180-20-1	18.0	20pF	.31	.284	.274	.211
324232CH	ECS-184-20-1	18.432	20pF	.31	.284	.274	.211
325112CH	ECS-184-20-4	18.432	20pF	.36	.325	.315	.24
325104CH	ECS-184-20-4DN	18.432	20pF	.62	.57	.50	.36
324241CH	ECS-196.6-20-1	19.6608	20pF	.31	.284	.274	.211
325083CH	ECS-196.6-20-4	19.6608	20pF	.36	.325	.315	.24
325091CH	ECS-196.6-20-4DN	19.6608	20pF	.62	.57	.50	.36
324259CH	ECS-196.6-S-1	19.6608	Series	.31	.285	.275	.21
325075CH	ECS-196.6-S-4	19.6608	Series	.36	.325	.315	.24
324267CH	ECS-200-20-1	20.0	20pF	.31	.285	.275	.21
325067CH	ECS-200-20-4	20.0	20pF	.36	.325	.315	.24
325059CH	ECS-200-20-4DN	20.0	20pF	.62	.57	.50	.36
325041CH	ECS-204.8-20-4	20.48	20pF	.36	.325	.315	.26
324304CH	ECS-221-S-1	22.1184	Series	.31	.285	.275	.21
325032CH	ECS-240-16-4	24.0	16pF	.36	.325	.315	.24
325024CH	ECS-240-20-4DN	24.0	20pF	.62	.57	.50	.36
325016CH	ECS-245.7-20-4	24.576	20pF	.36	.325	.315	.26
325008CH	ECS-250-18-4-F	25.0	18pF	.36	.325	.315	.225
324339CH	ECS-352.5-18-1	35.2512	18pF	.31	.285	.275	.21
324398CH	ECS-498.6-20-1	49.86	20pF	.31	.285	.275	.21

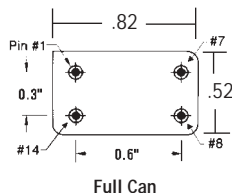
### Other Manufacturers — Limited Great Deals

102613CH	CY1.843	1.8432	18pF	\$.99	\$.72	\$.51	\$.39	14681CH	CY6	6.0	18pF	\$.79	\$.71	\$.64	\$.50
102621CH	CY2.0	2.0	Series	.81	.73	.66	.55	14699CH	CY6.14	6.144	30pF	.37	.34	.30	.25
101274CH	CY2.457	2.4576	32pF	.99	.89	.75	.69	14710CH	CY7.37	7.3728	30pF	.89	.80	.65	.488
14525CH	CY3.27	3.2768	18pF	.99	.89	.79	.69	14728CH	CY8	8.0	Series	.89	.79	.69	.54
14533CH	CY3.57	3.579545	18pF	.59	.54	.42	.39	14381CH	CY10	10.0	Series	.79	.69	.59	.49
14568CH	CY3.68	3.6864	18pF	.89	.79	.69	.59	120061CH	CY11.05	11.0592	Series	.89	.79	.69	.59
14592CH	CY4	4.0	20pF	.59	.54	.41	.39	14402CH	CY12	12.0	Series	.89	.75	.55	.39
14621CH	CY4.91	4.9152	Series	.89	.79	.69	.59	14453CH	CY16	16.0	Series	.62	.56	.50	.44
								14517CH	CY20	20.0	Series	.79	.69	.59	.39



## TTL Oscillators

- Specifications:**
- Input voltage: +5VDC  $\pm 0.5$ VDC
  - OSC series oscillators fit into a 14-pin DIP socket P/N 133006CH, pg 82
  - Frequency stability  $\pm 100$ ppm
  - Operating temperature: 0°C to 70°C
  - Output load TTL: 10 TTL max.

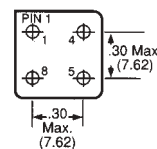


Pin #	Function
1	N/C
7	GND
8	Output
14	+5VDC

Full Can



325497CH



Half Can

Pin #	Function
1	N/C
4	GND
5	Output
8	+5VDC

Half Can

## NEW

### TTL Oscillators (Full Can)

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Max. Input Current	Rise Fall Time	Pricing			
					1	10	100	1000
325411CH	ECS-100A-035	3.579545	15mA	10ns	\$1.19	\$1.09	\$1.03	\$.79
325315CH	ECS-100A-036	3.6864	15mA	10ns	1.19	1.09	1.03	.77
354888CH	ECS-100A-040	4.0	15mA	10ns	1.35	1.22	1.17	.85
325374CH	ECS-100A-049	4.9152	15mA	10ns	1.19	1.09	1.03	.79
325323CH	ECS-100A-050	5.0	15mA	10ns	1.19	1.09	1.03	.79
325251CH	ECS-100A-051	5.0688	15mA	10ns	1.19	1.09	1.03	.79
325260CH	ECS-100A-060	6.0	15mA	10ns	1.19	1.09	1.03	.79
325278CH	ECS-100A-061	6.144	15mA	10ns	1.19	1.09	1.03	.79
325358CH	ECS-100A-073	7.3728	15mA	10ns	1.19	1.09	1.03	.77
354896CH	ECS-100A-080	8.0	30mA	10ns	1.35	1.22	1.17	.85
325331CH	ECS-100A-092.1	9.216	30mA	10ns	1.19	1.09	1.03	.79
325366CH	ECS-100A-098.3	9.8304	30mA	10ns	1.19	1.09	1.03	.79
354909CH	ECS-100A-100	10.0	30mA	10ns	1.19	1.15	1.03	.77
354870CH	ECS-100A-110.5	11.0592	30mA	10ns	1.35	1.22	1.17	.85
354837CH	ECS-100A-143	14.31818	30mA	—	1.19	1.09	1.03	.79
354845CH	ECS-100A-160	16.0	30mA	10ns	1.35	1.22	1.17	.85
325286CH	ECS-100A-162.5	16.257	30mA	10ns	1.19	1.09	1.03	.79
325340CH	ECS-100A-180	18.0	30mA	10ns	1.19	1.09	1.03	.79
325382CH	ECS-100A-184	18.432	30mA	10ns	1.19	1.09	1.03	.79
325446CH	ECS-100A-196.6	19.6608	30mA	10ns	1.19	1.09	1.03	.79
354917CH	ECS-100A-200	20.0	30mA	10ns	1.35	1.22	1.17	.85
325391CH	ECS-100A-240	24.0	70mA	10ns	1.19	1.09	1.03	.77
325454CH	ECS-100A-250	25.0	70mA	5ns	1.19	1.09	1.03	.77
325403CH	ECS-100A-283.2	28.322	70mA	5ns	1.19	1.09	1.03	.79
325438CH	ECS-100A-300	30.0	70mA	5ns	1.19	1.09	1.03	.79
325294CH	ECS-100A-350	35.0	70mA	5ns	1.19	1.09	1.03	.79
354861CH	ECS-100A-400	40.0	70mA	5ns	1.35	1.22	1.17	.85
354853CH	ECS-100A-500	50.0	70mA	5ns	1.35	1.22	1.17	.85

### Other Manufacturers — Limited Great Deals

27861CH	OSC1	1.0	7mA	15ns	\$2.75	\$2.45	\$1.59	\$1.39
325307CH	ECS-100A-012.2	1.2288	15mA	10ns	1.25	1.13	.89	.83
27879CH	OSC1.84	1.8432	7mA	15ns	2.39	2.15	1.95	1.59
27924CH	OSC2	2.0	7mA	15ns	1.99	1.79	1.59	1.39
27967CH	OSC4	4.0	7mA	10ns	1.99	1.79	1.59	1.39
27991CH	OSC8	8.0	15mA	15ns	1.99	1.79	1.59	1.39
27887CH	OSC10	10.0	15mA	10ns	1.99	1.79	1.59	1.39
144207CH	OSC11.05	11.059	50mA	10ns	1.35	1.19	.95	.89
27895CH	OSC12	12.0	15mA	10ns	1.99	1.79	1.59	1.29
108652CH	OSC14.31	14.31818	15mA	10ns	1.99	1.79	1.45	1.09
27908CH	OSC16	16.0	15mA	10ns	1.59	1.45	1.15	.85
27932CH	OSC20	20.0	17mA	10ns	1.79	1.59	1.45	1.29
27941CH	OSC32	32.0	18mA	7ns	1.59	1.45	1.15	.85
76822CH	OSC33	33.0	18mA	6ns	1.99	1.79	1.59	1.35
153226CH	OSC40	40.0	18mA	6ns	1.25	1.13	1.02	.83
76831CH	OSC50	50.0	25mA	6ns	1.99	1.79	1.43	1.07
325420CH	ECS-100A-666	66.666	70mA	5ns	1.19	1.08	.92	.87
76857CH	OSC100	100.0	25mA	3ns	2.49	2.25	1.95	1.75

## NEW

### TTL Oscillators (Half Can)

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Max. Input Current	Rise Fall Time	Pricing			
					1	10	100	1000
325500CH	ECS-2100A-035	3.579545	15mA	10ns	\$1.35	\$1.22	\$1.17	\$.90
325518CH	ECS-2100A-0.6	3.6864	15mA	10ns	1.35	1.22	1.17	.90
325526CH	ECS-2100A-040	4.0	15mA	10ns	1.32	1.21	1.17	.90
325534CH	ECS-2100A-051	5.0688	15mA	10ns	1.32	1.21	1.17	.90
325542CH	ECS-2100A-060	6.0	15mA	10ns	1.32	1.21	1.17	.90
325551CH	ECS-2100A-061	6.144	15mA	10ns	1.32	1.21	1.17	.90
325569CH	ECS-2100A-080	8.0	30mA	10ns	1.32	1.21	1.17	.90
325577CH	ECS-2100A-092.1	9.216	30mA	10ns	1.32	1.21	1.17	.90
325585CH	ECS-2100A-098.3	9.8304	30mA	10ns	1.35	1.22	1.17	.90
354829CH	ECS-2100A-100	10.0	25mA	5ns	1.35	1.22	1.17	.90
325593CH	ECS-2100A-110.5	11.0592	30mA	10ns	1.35	1.22	1.17	.90
325606CH	ECS-2100A-120	12.0	30mA	10ns	1.35	1.22	1.17	.90
325614CH	ECS-2100A-143	14.31818	30mA	10ns	1.35	1.22	1.17	.90
325622CH	ECS-2100A-160	16.0	30mA	10ns	1.35	1.22	1.17	.90
325631CH	ECS-2100A-162.5	16.257	30mA	10ns	1.35	1.22	1.17	.90
325649CH	ECS-2100A-184	18.432	30mA	10ns	1.35	1.22	1.17	.90
325657CH	ECS-2100A-196.6	19.6608	30mA	10ns	1.35	1.22	1.17	.90
325665CH	ECS-2100A-200	20.0	30mA	10ns	1.35	1.22	1.17	.90
325673CH	ECS-2100A-250	25.0	70mA	5ns	1.35	1.22	1.17	.90
325681CH	ECS-2100A-283.2	28.322	70mA	5ns	1.35	1.22	1.17	.90
325690CH	ECS-2100A-300	30.0	46mA	5ns	1.35	1.22	1.17	.90
325702CH	ECS-2100A-320	32.0	70mA	5ns	1.35	1.22	1.17	.90
325711CH	ECS-2100A-325.1	32.514	70mA	5ns	1.35	1.22	1.17	.90
325729CH	ECS-2100A-400	40.0	70mA	5ns	1.35	1.22	1.17	.90
325737CH	ECS-2100A-480	48.0	70mA	5ns	1.35	1.22	1.17	.90

### Other Manufacturers — Limited Great Deals

325462CH	ECS-2100A-010	1.0	15mA	10ns	\$1.35	\$1.22	\$.96	\$.90
325471CH	ECS-2100A-012.2	1.2288	15mA	10ns	1.35	1.22	.96	.90
325489CH	ECS-2100A-018	1.8432	15mA	10ns	1.39	1.29	1.01	.94
102779CH	OSC10H	10.0	45mA	6ns	1.45	1.05	.96	.79
325497CH	ECS-2100A-020	2.0	25mA	5ns	1.35	11.22	.96	.90
325745CH	ECS-2100A-640	64.0	70mA	5ns	1.35	1.22	1.10	1.01

## Lowest Price Guarantee

Find a product at a lower  
 print advertised price?  
 We'll beat that price by 10%  
 right down to our cost!



We have tried to cover all the most popular frequencies and packages in the market place for you. If we have missed any, please let us know and we will do our best to add it to our next catalog. Email us 24/7 at [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com).

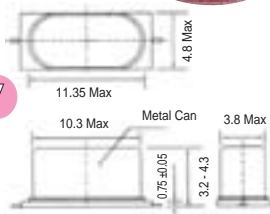
JAMECO ValuePro

## SMD Version of HC49US

**A Jameco EXCLUSIVE**

The CSM-7 is an excellent choice for SMD version of the HC-49US leaded crystal. The CSM-7 has a case height of 4.3mm maximum in a resistance weld metal package.

**NEW**

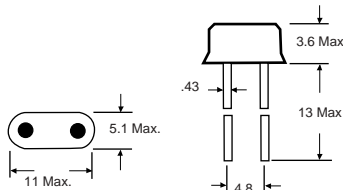


- Operating temperature range: -40°C to +85°C
- Frequency stability: ± 100ppm
- Drive level: 0.5mw
- Aging (first year @ +25°C): ± 5ppm

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Pricing			
				1	10	100	1000
325868CH	ECS-35-17-5PDN	3.579545	17pF	<b>\$.83</b>	<b>\$.70</b>	<b>\$.55</b>	<b>\$.46</b>
325876CH	ECS-36-20-5PDN	3.6864	20pF	.83	.70	.55	.46
325884CH	ECS-40-20-5PDN	4.0	20pF	.83	.70	.55	.46
325892CH	ECS-60-32-5PDN	6.0	32pF	.83	.70	.55	.43
325905CH	ECS-73-20-5PDN	7.3728	20pF	.83	.70	.55	.43
325913CH	ECS-80-18-5PDN	8.0	18pF	.83	.70	.55	.46
325921CH	ECS-120-20-5PDN	12.0	20pF	.83	.70	.56	.46
325930CH	ECS-143-20-5PDN	14.31818	20pF	.83	.70	.55	.46
325948CH	ECS-160-20-5PDN	16.0	20pF	.83	.70	.56	.46
325956CH	ECS-184-20-5PDN	18.432	20pF	.83	.70	.55	.46
325964CH	ECS-196-20-5PDN	19.6608	20pF	.83	.70	.55	.46
325972CH	ECS-200-20-5PDN	20.0	20pF	.83	.70	.55	.46
325981CH	ECS-240-20-5PDN	24.0	20pF	.83	.70	.55	.46

## HC49/S Case (Low Profile Crystals)

- Frequency range: 3.5 to 70.0MHz
- Operating temperature: -10°C to +60°C
- Drive level: 0.5mW (fundamental frequency)
- Aging: ±5ppm/year maximum
- Frequency stability tolerance: ±50ppm

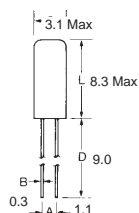


Part No.	Mfr. Cross Ref. No.	Frequency (KHz)	Imped.	Max. Resist.	Pricing			
					1	10	100	1000
137816CH	CY3.57LP	3.579545	17pF	150Ω	<b>\$.95</b>	<b>\$.86</b>	<b>\$.68</b>	<b>\$.51</b>
137832CH	CY4LP	4.000	17pF	120Ω	.99	.89	.79	.69
137859CH	CY8LP	8.000	Series	60Ω	.75	.67	.59	.53
137875CH	CY11.05LP	11.0592	Series	50Ω	1.05	.81	.66	.52
137891CH	CY16LP	16.000	Series	40Ω	.39	.36	.29	.27

## Turning Fork

- Operating temperature range: -10°C to +60°C
- Frequency tolerance: ±20ppm
- Drive level: 1mw
- Aging for first year: ± 3ppm (max. +25°C)

**NEW**



Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Pricing			
				1	10	100	1000
14584CH	CY32.76	32.768kHz	10.5pF	<b>\$.89</b>	<b>\$.79</b>	<b>\$.69</b>	<b>\$.59</b>
325243CH	ECS-327-12.5-13	32.768kHz	12.5pF	.23	.215	.185	.135

## 14-Pin Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting

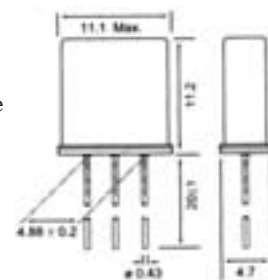


Part No.	Description	1	10	100	1000
133006CH	Oscillator socket .....	<b>\$.55</b>	<b>\$.46</b>	<b>\$.34</b>	<b>\$.31</b>

JAMECO ValuePro

## Monolithic Crystal Filters

Monolithic crystal filters have very high Q's and excellent temperature and aging characteristics. These filters offer narrow and intermediate bandwidths. The monolithic crystal filter is smaller and more cost effective than a discrete crystal filter. With the addition of coupling capacitors between two-pole sections, they can be cascaded to produce four, six and eight (or more) pole filter responses.



- High stability for wide temperature ranges
- Sharp cut-off
- Low cost
- Operating temperature range: -20°C to +80°C
- Frequency accuracy: ±0.5% @ 25°C
- Temp. stability: ±0.3%
- Aging for 10 years: ± 0.3%
- Withstanding voltage: 100VDC

**NEW**

**A Jameco EXCLUSIVE**

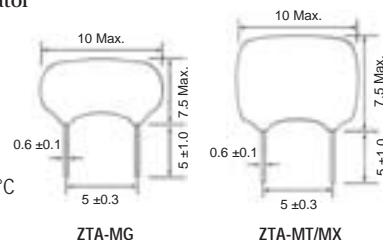
Part No.	Mfr. Cross Ref. No.	Freq. (KHz)	No. of Poles	Ripple Max.	Terminating Imped. (Ω/pF)	Pricing		
						1	10	100
324101CH	ECS-10.7-7.5A	12.5kHz	2	0.5dB	1800/5.0	<b>\$2.65</b>	<b>\$2.39</b>	<b>\$2.15</b>
324081CH	ECS-10.7-15A	25.0kHz	2	0.5dB	3000/2.0	1.55	1.42	1.28
324099CH	ECS-10.7-15B	25.0kHz	4	1dB	3000/2.0	3.19	2.91	2.62

JAMECO ValuePro

## Ceramic Resonators

The ZTA series ceramic resonator offers wide frequency range and extended temperature range capabilities.

- Low profile
- Wide frequency range
- Extended temperature range
- High stability
- Frequency accuracy: ±0.5% @ 25°C
- Operating temperature range: -20°C to +85°C
- Temperature stability: ±0.3%
- Drive level: 0.5mw
- Aging for 10 years: ± 0.3%



**A Jameco EXCLUSIVE**

**NEW**

Part No.	Mfr. Cross Ref. No.	Freq. (MHz)	No. of Pins	Resonant Resistance Ω (max.)	Withstanding Voltage 5 sec. (max.)	Pricing			
						1	10	100	1000
324591CH	ZTA-3.58MG	3.58	2	30	100V	<b>\$.28</b>	<b>\$.255</b>	<b>\$.25</b>	<b>\$.195</b>
324603CH	ZTA-4.00MG	4.0	2	30	100V	.28	.255	.25	.195
324697CH	ZTT-4.00MG	4.0	3	30	100V	.33	.30	.26	.25
324611CH	ZTA-4.19MG	4.19	2	30	100V	.38	.32	.255	.195
324700CH	ZTT-4.19MG	4.19	3	30	100V	.42	.355	.285	.22
324620CH	ZTA-6.00MT	6.0	2	30	100V	.28	.26	.255	.195
324718CH	ZTT-6.00MT	6.0	3	30	100V	.31	.285	.275	.21
324638CH	ZTA-8.00MT	8.0	2	25	100V	.28	.26	.255	.195
324726CH	ZTT-8.00MT	8.0	3	25	100V	.31	.285	.275	.21
324558CH	ZTA-10.00MT	10.0	2	25	100V	.28	.255	.25	.195
324566CH	ZTA-12.00MT	12.0	2	25	100V	.28	.255	.25	.195
324654CH	ZTT-12.00MT	12.0	3	25	100V	.31	.285	.275	.21
324574CH	ZTA-16.00MX	16.0	2	55	100V	.28	.255	.25	.195
324662CH	ZTT-16.00MX	16.0	3	55	100V	.31	.285	.275	.21
324582CH	ZTA-20.00MX	20.0	2	55	100V	.28	.255	.25	.195
324671CH	ZTT-20.00MX	20.0	3	55	100V	.31	.285	.275	.21

## Other Manufacturers — Limited Great Deals

324689CH	ZTT-3.58MG	3.58	3	30	100V	<b>\$.33</b>	<b>\$.30</b>	<b>\$.26</b>	<b>\$.25</b>
324646CH	ZTT-10.00MT	10.0	3	25	100V	.33	.30	.26	.25

## Free Technical Support

Our Knowledgeable Tech Support department is ready to answer your questions. Just call us!

**Kits Include the Most Popular Components and a Cabinet with Extra Drawers for Your Customized Expansion**

Each Kit includes a 20-Drawer Component Cabinet (319599CH), 20 clear plastic drawers (319601CH), 20 clear dividers (319610CH), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.



81875CH (Capacitor Kit)

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Cabinet: ABS-Black
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Weight: 4.6 to 6.4 lbs.
- Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.

Need a refill?  
Just call  
1-800-831-4242



81832CH (Resistor Kit)

## Radial Electrolytic Capacitor Kit

SAVE \$11

Includes 240 pcs. (15 values)  $\pm 20\%$  Radial Electrolytic Capacitors

10 each	10 each	20 each	20 each	20 each
100 $\mu$ F @ 50V	1000 $\mu$ F @ 16V	1 $\mu$ F @ 50V	3.3 $\mu$ F @ 50V	22 $\mu$ F @ 50V
220 $\mu$ F @ 25V	2200 $\mu$ F @ 25V	1 $\mu$ F @ 100V	4.7 $\mu$ F @ 50V	47 $\mu$ F @ 50V
470 $\mu$ F @ 25V	3300 $\mu$ F @ 25V	2.2 $\mu$ F @ 50V	10 $\mu$ F @ 50V	100 $\mu$ F @ 25V
Part No.	Description	Wt. (lbs.)	1	10
81867CH	240 pcs. Radial Capacitor kit	5.3	\$29.95	\$26.95
130331CH	Refill for 81867CH (240 pcs.)	0.5	17.95	16.49

## Axial Electrolytic Capacitor Kit

SAVE \$12

Includes 140 pcs. (10 values)  $\pm 20\%$  Axial Electrolytic Capacitors

10 each	10 each	10 each	20 each	20 each
47 $\mu$ F @ 50V	220 $\mu$ F @ 50V	1000 $\mu$ F @ 25V	1 $\mu$ F @ 50V	10 $\mu$ F @ 50V
100 $\mu$ F @ 50V	470 $\mu$ F @ 50V	2200 $\mu$ F @ 16V	4.7 $\mu$ F @ 50V	2.2 $\mu$ F @ 50V
Part No.	Description	Wt. (lbs.)	1	10
81875CH	140 pcs. Axial Capacitor kit	5.3	\$37.95	\$34.15
130340CH	Refill for 81875CH (140 pcs.)	0.6	24.95	22.49

## Mylar Capacitor Kit

SAVE \$11

Includes 280 pcs. (10 values) 100V  $\pm 10\%$  Mylar Capacitors

10 each	10 each	10 each	10 each	100 each
.001 $\mu$ F	.022 $\mu$ F	.047 $\mu$ F	.47 $\mu$ F	.01 $\mu$ F
.0047 $\mu$ F	.033 $\mu$ F	.22 $\mu$ F	1 $\mu$ F	.1 $\mu$ F
Part No.	Description	Wt. (lbs.)	1	10
81883CH	280 pcs. Mylar Capacitor kit	5.1	\$37.95	\$34.15
130358CH	Refill for 81883CH (280 pcs.)	0.3	19.95	17.95

## Dipped Tantalum Capacitor Kit

SAVE \$31

Includes 150 pcs. (15 values)  $\pm 20\%$  Dipped Tantalum Capacitors

10 each	10 each	10 each	10 each	10 each
.1 $\mu$ F @ 35V	1 $\mu$ F @ 25V	3.3 $\mu$ F @ 35V	10 $\mu$ F @ 16V	22 $\mu$ F @ 16V
.22 $\mu$ F @ 35V	1 $\mu$ F @ 35V	4.7 $\mu$ F @ 35V	10 $\mu$ F @ 35V	33 $\mu$ F @ 25V
.47 $\mu$ F @ 35V	2.2 $\mu$ F @ 16V	6.8 $\mu$ F @ 35V	15 $\mu$ F @ 25V	47 $\mu$ F @ 25V
Part No.	Description	Wt. (lbs.)	1	10
81841CH	150 pcs. Tantalum Capacitor kit	4.8	\$79.95	\$71.95
130260CH	Refill for 81841CH (150 pcs.)	0.3	59.95	53.95

## Ceramic Disc Capacitor Kit

SAVE \$15

Includes 520 pcs. (10 values) 50V  $\pm 20\%$  Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100 each
10pF	47pF	470pF	.022 $\mu$ F	.01 $\mu$ F
22pF	100pF	.001 $\mu$ F	.047 $\mu$ F	.1 $\mu$ F
Part No.	Description	Wt. (lbs.)	1	10
81859CH	520 pcs. Ceramic Capacitor kit	5.0	\$35.95	\$32.35
130232CH	Refill for 81859CH (520 pcs.)	0.3	17.95	16.49

## Monolithic Ceramic Capacitor Kit

SAVE \$11

Includes 280 pcs. (10 values) 50V  $\pm 20\%$  Monolithic Ceramic Capacitors

10 each	10 each	10 each	10 each	100 each
22pF	.001 $\mu$ F	.047 $\mu$ F	.47 $\mu$ F	.01 $\mu$ F
100pF	.0022 $\mu$ F	.22 $\mu$ F	1 $\mu$ F	.1 $\mu$ F
Part No.	Description	Wt. (lbs.)	1	10
171475CH	280 pcs. Monolithic Capacitor kit	5.0	\$29.95	\$26.95
171483CH	Refill for 171475CH (280 pcs.)	0.3	17.95	15.95

## 1/8-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/8-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10 $\Omega$	330 $\Omega$	1.5k $\Omega$	3.3k $\Omega$	15k $\Omega$	47k $\Omega$	100 $\Omega$	4.7k $\Omega$
47 $\Omega$	390 $\Omega$	2 $\Omega$	5.1k $\Omega$	22k $\Omega$	470k $\Omega$	220 $\Omega$	10k $\Omega$
150 $\Omega$	470 $\Omega$	2.2k $\Omega$	5.6k $\Omega$	27k $\Omega$	1M $\Omega$	1k $\Omega$	100k $\Omega$
270 $\Omega$	680 $\Omega$	2.7k $\Omega$	6.8k $\Omega$	33k $\Omega$	10M $\Omega$		
Part No.	Description	Wt. (lbs.)	1	10			
108329CH	540 pcs. 1/8-watt Resistor kit	4.9	\$24.95	\$22.49			
108302CH	Refill for 108329CH (540 pcs.)	0.2	12.95	11.49			

## 1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10 $\Omega$	330 $\Omega$	1.2k $\Omega$	2.7k $\Omega$	15k $\Omega$	47k $\Omega$	100 $\Omega$	4.7k $\Omega$
47 $\Omega$	390 $\Omega$	1.5k $\Omega$	3.3k $\Omega$	20k $\Omega$	470k $\Omega$	220 $\Omega$	10k $\Omega$
150 $\Omega$	470 $\Omega$	2k $\Omega$	5.1k $\Omega$	22k $\Omega$	1M $\Omega$	1k $\Omega$	100k $\Omega$
270 $\Omega$	680 $\Omega$	2.2k $\Omega$	5.6k $\Omega$	33k $\Omega$	10M $\Omega$		
Part No.	Description	Wt. (lbs.)	1	10			
81832CH	540 pcs. 1/4-watt Resistor kit	4.9	\$27.95	\$24.95			
103165CH	Refill for 81832CH (540 pcs.)	0.2	12.95	11.49			

## 1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10 $\Omega$	330 $\Omega$	1.5k $\Omega$	3.3k $\Omega$	15k $\Omega$	47k $\Omega$	100 $\Omega$	4.7k $\Omega$
47 $\Omega$	390 $\Omega$	2k $\Omega$	5.1k $\Omega$	22k $\Omega$	470k $\Omega$	220 $\Omega$	10k $\Omega$
150 $\Omega$	470 $\Omega$	2.2k $\Omega$	5.6k $\Omega$	27k $\Omega$	1M $\Omega$	1k $\Omega$	100k $\Omega$
270 $\Omega$	680 $\Omega$	2.7k $\Omega$	6.8k $\Omega$	33k $\Omega$	10M $\Omega$		
Part No.	Description	Wt. (lbs.)	1	10			
107879CH	540 pcs. 1/2-watt Resistor kit	5.1	\$29.95	\$26.95			
107852CH	Refill for 107879CH (540 pcs.)	0.4	14.95	13.49			

## 1/2-Watt Single Turn Cermet Pot Kit

SAVE \$28

See page 75 (63P Series) for photos and specs.

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
63P500 $\Omega$	63P5k $\Omega$	63P500k $\Omega$	63P1k $\Omega$	63P50k $\Omega$
63P2k $\Omega$	63P20k $\Omega$	63P1M $\Omega$	63P10k $\Omega$	63P100k $\Omega$
Part No.	Description	Wt. (lbs.)	1	10
85032CH	100 pcs. Single turn Pot kit	4.9	\$65.95	\$59.35

## 3/4-Watt 15 Turn Cermet Pot Kit

SAVE \$32

See page 75 (43P Series) for photos and specs.

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
43P500 $\Omega$	43P5k $\Omega$	43P500k $\Omega$	43P1k $\Omega$	43P50k $\Omega$
43P2k $\Omega$	43P20k $\Omega$	43P1M $\Omega$	43P10k $\Omega$	43P100k $\Omega$
Part No.	Description	Wt. (lbs.)	1	10
85041CH	100 pcs. 15 turn Pot kit	4.9	\$82.95	\$74.65

Individually Sold Potentiometers

See pages 73-77





## Belden Coaxial Cables



Compare Belden coaxial cables with the other companies who produce them and you will discover the obvious: Belden has no equal. That's because Belden coaxial cables are time-tested for performance, performance that guarantees outstanding value. Belden guarantees this level of performance because every cable is tested with equipment that simulates every known environmental and electrical performance condition. As a result, Belden coaxial cable can be counted on for positive, reliable, and trouble-free operation. Engineered in a wide selection of sizes and materials, with each offering the benefits needed for physical, electrical and cost-requirement applications. Cable choices include broadband, standard analog, precision video for analog and digital, and more. For our complete line of Belden products, please visit [www.Jameco.com/Belden](http://www.Jameco.com/Belden).

### 50Ω Transmission and Computer Cable RG8/U Type

16 AWG stranded (19x29) .058" bare copper

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 81.4pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .042" • Color: black



**SALE**

Part No.	Product No.	Description	1	5	10
234254CH	9258-100-10	100' reel	\$55.79	\$46.88	\$44.54
234256CH	9258-500-10	500' reel	205.99	168.99	159.99
234255CH	9258-1000-10	1000' reel	406.79	386.45	367.13
234258CH	9258-U500-10	500' unreel box	205.99	168.99	159.99
234257CH	9258-U1000-10	1000' unreel box	406.79	386.45	367.13

13 AWG stranded (7 x 21) .085" bare copper

- 97% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 52Ω
- Nominal outer diameter: .405" • Color: black



Part No.	Product No.	Description	1	5	10
232848CH	8237-100-10	100' reel	\$114.39	\$103.98	\$95.32
232856CH	8237-500-10	500' reel	397.75	361.54	331.44
232864CH	8237-1000-10	1000' reel	697.19	639.18	589.97

11 AWG stranded (7 x 19) .108" bare copper

- 97% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 85.3pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .285" • Color: black



Part No.	Product No.	Description	1	5	10
232750CH	8214-100-10	100' reel	\$99.99	\$94.67	\$86.80
232768CH	8214-500-10	500' reel	523.45	475.83	436.21
232776CH	8214-1000-10	1000' reel	829.15	760.10	701.58

### 50Ω Transmission and Computer Cable RG58A/U Type

20 AWG solid .032" bare copper

- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 51.5Ω
- Nominal outer diameter: .193" • Color: black



**SALE**

Part No.	Product No.	Description	1	5	10
232872CH	8240-100-10	100' reel	\$39.99	\$36.39	\$33.06
232881CH	8240-500-10	500' reel	137.79	124.99	113.59
232899CH	8240-1000-10	1000' reel	250.49	229.70	212.02
234175CH	8240-U500-10	500' unreel box	109.99	90.99	90.39
234174CH	8240-U1000-10	1000' unreel box	219.99	181.99	180.77

20 AWG stranded (19 x 33) .035" tinned copper

- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .192" • Color: black



Part No.	Product No.	Description	1	5	10
232936CH	8259-100-10	100' reel	\$44.79	\$40.64	\$36.93
232944CH	8259-500-10	500' reel	126.59	115.08	105.51
232952CH	8259-1000-10	1000' reel	261.15	237.29	221.43

20 AWG stranded (19 x 32) .037" tinned copper

- 96% tinned copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 86.9pF/m • Nominal impedance: 53.5Ω
- Nominal outer diameter: .194" • Color: black



Part No.	Product No.	Description	1	5	10
232813CH	8219-100-10	100' reel	\$35.99	\$34.30	\$31.90
232821CH	8219-500-10	500' reel	144.29	137.09	130.24
232830CH	8219-1000-10	1000' reel	299.99	286.18	265.47

### 50Ω Transmission and Computer Cable RG174/U Type

26 AWG stranded (7 x 34) .019" bare copper-covered steel

- 90% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .110" • Color: black



Part No.	Product No.	Description	1	5	10
232784CH	8216-100-10	100' reel	\$35.45	\$32.18	\$29.23
232792CH	8216-500-10	500' reel	114.19	103.64	94.16
232805CH	8216-1000-10	1000' reel	215.99	203.97	193.77

### 75Ω Broadband Coax CATV Cable RG6/U Type

18 AWG solid .040" bare copper-covered steel

- DuoBond® II +60% aluminum braid shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .270" • Color: black



Part No.	Product No.	Description	1	5	10
233269CH	9116-100-10	100' reel	\$20.89	\$17.56	\$16.68
233277CH	9116-500-10	500' reel	57.19	50.07	47.57
233285CH	9116-1000-10	1000' reel	102.55	97.43	92.56

18 AWG solid .040" bare copper-covered steel

- DuoBond® IV quad shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .298" • Color: black



Part No.	Product No.	Description	1	5	10
232733CH	1189A-100-10	100' reel	\$23.99	\$20.14	\$18.13
233402CH	1189A-500-10	500' reel	83.99	67.87	64.48
232741CH	1189A-1000-10	1000' reel	152.55	144.93	137.68
234052CH	1189A-U500-10	500' unreel box	83.99	67.87	64.48

### Precision Video Cable for Analog and Digital RG6 Type

18 AWG solid .040" bare copper

- DuoFoil® +95% tinned copper braid shield
- Gas injected foam HDPE insulation, PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .275" • Color: black



Part No.	Product No.	Description	1	5	10
234099CH	1694A-100-10	100' reel	\$66.49	\$55.86	\$53.07
234155CH	1694A-500-10	500' reel	199.99	162.90	150.90
234154CH	1694A-1000-10	1000' reel	403.75	327.78	303.80

### Direct Broadcast Satellite RG6 Type Cable

18 AWG solid .040" bare copper

- DuoBond® II +60% aluminum braid
- Gas injected foam polyethylene insulation, PVC jacket
- Nominal capacitance: 16.2pF/m
- Nominal impedance: 75Ω
- Nominal outer diameter: .270"



Part No.	Product No.	Description	1	5	10
234156CH	1829AC-100-10	100' reel	\$14.99	\$13.99	\$12.99
234177CH	1829AC-500-10	500' reel	54.99	52.24	49.63
234157CH	1829AC-1000-10	1000' reel	106.99	96.29	91.48

### Composite Data, Audio, Video, Security and Control Cable

Two RG6 18 AWG solid bare copper conductor and two 4-pair UTP 24 AWG solid bare copper conductor

- Banana Peel™ jacketless cables
- Gas injected FPR insulation coax cable, polyolefin insulation CAT5e cable and F-R PVC jackets
- Component nominal outer diameter: .200"

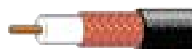


**SALE**

Part No.	Product No.	Description	1	5	10
234163CH	7913S-500	500' reel	\$242.99	\$229.99	\$219.99
234162CH	7913S-1000	1000' reel	461.79	449.43	437.08

**Belden Coaxial Cables (Continued)****75Ω Standard Analog Video Cable RG59/U Type****23 AWG solid .023" bare copper**

- 95% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .242" • Color: black



Part No.	Product No.	Description	1	5	10
232901CH	8241-100-10	100' reel	\$44.39	\$39.90	\$36.60
232910CH	8241-500-10	500' reel	125.19	113.62	103.17
232928CH	8241-1000-10	1000' reel	224.15	205.77	189.67

**22 AWG stranded (7 x 30) .030" bare copper**

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 56.7pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .241" • Color: black

**SALE**

Part No.	Product No.	Description	1	5	10
232653CH	9259-100-10	100' reel	\$50.25	\$40.63	\$39.12
232661CH	9259-500-10	500' reel	135.85	123.44	120.99
232670CH	9259-1000-10	1000' reel	264.49	254.99	241.89
234070CH	9259-U500-10	500' unreel box	135.85	123.44	120.99
234069CH	9259-U1000-10	1000' unreel box	264.49	254.99	241.89

**RG59 Type Security Coaxial Cable****20 AWG solid bare copper conductor**

- 95% bare copper braid shield
- Nominal impedance: 75Ω
- Foam polyolefin insulation and black UV resistant PVC jacket
- Impregnated with CoreGuard® flame retardant flooding compound
- Shielded or flooded for use in underground ducts
- Surveillance and CCTV applications • Color: black



Part No.	Product No.	Description	1	5	10
234158CH	543945-100-10	100' reel	\$13.85	\$13.18	\$12.51
234160CH	543945-500-10	500' reel	64.95	61.98	58.92
234159CH	543945-1000-10	1000' reel	129.99	107.49	101.49

**Standard Analog Video Cable 75Ω Miniature Coax****27 AWG stranded (7x35) .017" bare copper-covered steel**

- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m
- Nominal impedance: 75Ω
- Nominal outer diameter: .100" • Color: black



Part No.	Product No.	Description	1	5	10
234173CH	8218-U500-10	500' unreel box	\$175.85	\$159.56	\$144.99
234172CH	8218-U1000-10	1000' unreel box	363.95	330.20	313.69

**Broadband Coax (Headend/Video Cables)****20 AWG solid .031" bare copper**

- 98% tinned copper double braid shield
- Polyethylene insulation and jacket
- Nominal capacitance 68.9pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .305" • Color: black



Part No.	Product No.	Description	1	5	10
232961CH	8281-100-10	100' reel	\$85.49	\$72.06	\$68.46
232979CH	8281-500-10	500' reel	349.99	299.99	269.75
232987CH	8281-1000-10	1000' reel	656.49	559.99	535.49

**20 AWG solid .032" solid bare copper**

- Duofoil® +95% tinned copper braid shield
- Gas injected foam HDPE insulation and PVC jacket
- Nominal capacitance: 53.5pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .234" • Color: black

**SALE**

Part No.	Product No.	Description	1	5	10
234086CH	1505A-100-10	100' reel	\$51.05	\$42.89	\$40.75
234088CH	1505A-500-10	500' reel	172.49	140.49	139.99
234087CH	1505A-1000-10	1000' reel	339.99	280.99	279.75

Color Code Legend			
New	Save	Lower\$	QtySave

**Belden Speaker Cables**

These speaker cables are used to connect receivers or power amplifiers to speakers and are also used for the internal wiring of the speakers. All Belden speaker cables utilize only high-conductivity copper produced by a process called Electrolytic Tough Pitch (ETP). This refining process produces a conductor that is 99.95% pure copper resulting in high-conductivity per ASTM B115.

**Electrolytic Tough Pitch (ETP) High Conductivity Copper Speaker Cables**

- 2-conductor stranded
- ETP high conductivity copper
- Parallel (1) tinned (1) bare
- PVC insulation • Clear PVC jacket

**18 AWG Stranded (16 x 30)**

Part No.	Product No.	Description	1	5	10
232573CH	9708-100-368	100' reel	\$32.59	\$29.48	\$26.79
232581CH	9708-500-368	500' reel	119.85	113.82	107.51
232590CH	9708-1000-368	1000' reel	227.59	214.99	202.33
234153CH	9708-U500-368	500' unreel box	119.49	113.22	106.98
234080CH	9708-U1000-368	1000' unreel box	227.59	213.79	202.33

**14 AWG Stranded (19 x 27)**

232602CH	9717-100-368	100' reel	\$65.49	\$55.09	\$49.45
233429CH	9717-500-368	500' reel	255.69	242.25	218.04
232611CH	9717-1000-368	1000' reel	459.29	433.66	390.41

**12 AWG Stranded (65 x 30)**

232629CH	9718-100-368	100' reel	\$126.35	\$106.13	\$100.82
232637CH	9718-500-368	500' reel	405.25	358.42	310.77
232645CH	9718-1000-368	1000' reel	849.99	799.99	749.99

**Belden Hook-up Wire****UL AWM Style 1007**

Belden hook-up and lead wire products are manufactured in a variety of materials, sizes, and designs to meet rigid industry and government specifications. Used in a wealth of applications including inter-connection circuits, internal wiring of computer and data processing equipment, appliances, and automotive. AWM, or Appliance Wiring Material, is Underwriter Laboratories' recognized covering of insulated wires and cables intended for internal wiring of appliances and equipment.

- Tinned copper • PVC insulated
- Rated 105°C, 300V; 600V peak for electronic circuits and electrical equipment
- Increments of 100' reels



Use the color code chart below to replace the "xx" when ordering

01 – Brown	02 – Red	03 – Orange	04 – Yellow	05 – Green
07 – Violet	08 – Gray	09 – White	10 – Black	13 – Dark blue

e.g. **234601CH** – **2346** is the Jameco designation for 28 AWG stranded wire and **01** is for color brown

Part No.	Product No.	Description	1	5	10
2346xxCH	9928-100-xx	28 AWG (7 x 36) stranded	\$11.45	\$9.35	\$8.62
2345xxCH	9926-100-xx	26 AWG (7 x 34) stranded	12.29	11.13	10.10
2344xxCH	9923-100-xx	24 AWG (7 x 32) stranded	12.89	11.72	10.61
2343xxCH	9921-100-xx	22 AWG (7 x 30) stranded	14.79	13.51	12.26
2342xxCH	9919-100-xx	20 AWG (7 x 28) stranded	18.29	16.59	15.10
2341xxCH	9918-100-xx	18 AWG (16 x 30) stranded	20.39	19.19	16.79
2340xxCH	9916-100-xx	16 AWG (26 x 30) stranded	28.29	22.99	21.25

**Bus Bar Hook Up Wire**

Made in accordance with the performance requirements of Federal Specifications QQ-W343G.

- Solid tinned copper, single conductor
- Nominal outer diameter: 24 AWG – .021"; 22 AWG – .026"; 20 AWG – .033"

Part No.	Product No.	Description	1	5	10
234168CH	8022-100	24 AWG, 100' reel	\$10.49	\$9.49	\$8.63
234169CH	8022-1000	24 AWG, 1000' reel	57.29	46.31	42.75
234166CH	8021-100	22 AWG, 100' reel	11.65	9.39	8.49
234167CH	8021-1000	22 AWG, 1000' reel	70.69	60.26	55.73
234164CH	8020-100	20 AWG, 100' reel	13.29	11.67	10.55
234165CH	8020-1000	20 AWG, 1000' reel	93.69	79.85	73.84



Belden cable products are manufactured in a variety of gauge sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including PVC, PLENUM and High-Temperature versions to meet the technical requirements of many different types of systems. Paired cables allow balanced signal transmission, which results in lower crosstalk through common mode rejection. Due to the improved noise immunity of twisted pairs, they generally permit higher data speeds than other multi-conductor cables. For our complete line of Belden products, please visit [www.Jameco.com/Belden](http://www.Jameco.com/Belden).

• Chrome PVC jacket • Tinned copper • Twisted pairs • Tinned copper drain wire • Overall 100% BELDFOIL® shield (for shielded cables)

### High-Temperature Control, Instrumentation Cables and Computer Cables

**24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire**

- Semi-rigid PVC insulation • Nominal DCR: 24Ω/m
- Nominal impedance: 75Ω • Color: chrome



9501 Series



9502 Series



9503 Series



9504 Series

Part No.	Product No.	No. of Pairs	Description	1	5	10
232709CH	9501-100-60	1	100' reel .....	\$12.65	\$10.36	\$9.50
232717CH	9501-500-60	1	500' reel .....	63.65	60.28	56.93
232725CH	9501-1000-60	1	1000' reel .....	120.55	113.86	105.62
234073CH	9501-U500-60	1	500' unreel box .....	63.65	60.28	56.93
234072CH	9501-U1000-60	1	1000' unreel box ..	120.55	113.86	107.16
232451CH	9502-100-60	2	100' reel .....	19.99	16.99	15.49
232469CH	9502-500-60	2	500' reel .....	99.99	83.99	77.49
232477CH	9502-1000-60	2	1000' reel .....	179.55	154.39	153.49
234075CH	9502-U500-60	2	500' unreel box .....	99.99	83.99	77.49
234074CH	9502-U1000-60	2	1000' unreel box ..	181.35	154.99	154.49
232485CH	9503-100-60	3	100' reel .....	25.99	21.99	20.39
232493CH	9503-500-60	3	500' reel .....	129.99	110.99	99.99
232506CH	9503-1000-60	3	1000' reel .....	244.99	214.99	199.99
234077CH	9503-U500-60	3	500' unreel box .....	129.99	110.99	99.99
234076CH	9503-U1000-60	3	1000' unreel box ..	244.99	214.99	199.99
232514CH	9504-100-60	4	100' reel .....	32.99	26.99	24.99
232522CH	9504-500-60	4	500' reel .....	159.99	133.99	122.99
232531CH	9504-1000-60	4	1000' reel .....	275.29	252.39	232.96
232549CH	9505-100-60	5	100' reel .....	36.99	29.99	27.99
232557CH	9505-500-60	5	500' reel .....	177.99	168.78	159.51
232565CH	9505-1000-60	5	1000' reel .....	329.99	318.80	299.99
234078CH	9505-U500-60	5	500' unreel box .....	179.99	151.99	139.99
234079CH	9505-U1000-60	5	1000' unreel box ..	329.99	318.80	299.99

### Low Capacitance Computer Cables

**24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire**

- Datalene® insulation, chrome PVC jacket
- Nominal DCR: 24Ω/m
- Nominal impedance: 100Ω
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
234178CH	1419A-100-60	2	100' reel .....	\$23.45	\$21.49	\$19.53
234085CH	1419A-500-60	2	500' reel .....	93.79	85.97	78.10
234084CH	1419A-1000-60	2	1000' reel .....	158.49	157.93	138.65

### Audio, Control, and Instrumentation Cables Non-Plenum

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polypropylene insulation
- Paper wrap
- Black PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: .138" • Color: black



Part No.	Product No.	No. of Pairs	Description	1	5	10
233111CH	8451-100-10	1	100' reel .....	\$19.45	\$17.65	\$16.04
233120CH	8451-500-10	1	500' reel .....	86.55	78.55	71.36
233138CH	8451-1000-10	1	1000' reel .....	155.79	142.83	131.84
234062CH	8451-U500-10	1	500' unreel box .....	86.49	78.55	71.36
234061CH	8451-U1000-10	1	1000' unreel box .....	155.79	142.83	131.84

### Audio, Control, and Instrumentation Cables Non-Plenum (Cont'd)

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polypropylene insulation • PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: .135"
- Color: gray



Part No.	Product No.	No. of Pairs	Description	1	5	10
232688CH	9451-100-08	1	100' reel .....	\$23.75	\$19.95	\$18.95
232696CH	9451-500-08	1	500' reel .....	90.29	79.09	71.19
233411CH	9451-T1000-08	1	1000' reel .....	136.19	131.25	124.69

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .175"
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
234190CH	8761-500-60	1	500' reel .....	\$92.59	\$80.22	\$77.14
234189CH	8761-1000-60	1	1000' reel .....	173.75	159.25	147.65
234192CH	8761-U500-60	1	500' unreel box .....	93.59	84.90	77.14
234191CH	8761-U1000-60	1	1000' unreel box ..	148.55	137.39	135.16

**22 AWG stranded (7 x 30) shielded with 24 AWG stranded TC drain wire**

- Polypropylene insulation
- Nominal capacitance: 115pF/m
- Nominal outer diameter: .168"
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
234179CH	8723-100-60	2	100' reel .....	\$21.49	\$19.54	\$17.76
234181CH	8723-500-60	2	500' reel .....	107.99	97.71	88.79
234180CH	8723-1000-60	2	1000' reel .....	195.79	179.51	165.72
234183CH	8723-U500-60	2	500' unreel box .....	110.99	99.99	84.99
234182CH	8723-U1000-60	2	1000' unreel box ..	199.99	189.99	179.99

**20 AWG stranded (7 x 28) unshielded**

- Chrome PVC jacket
- Color: chrome

**Lower \$\$\$**



Part No.	Product No.	No. of Pairs	Description	1	2	5
234171CH	8205-U500-60	1	500' unreel box .....	\$69.99	\$60.69	\$54.30
234170CH	8205-U1000-60	1	1000' unreel box .....	121.39	108.60	99.84

**20 AWG stranded (7 x 28) shielded with 22 AWG stranded TC drain wire**

- Semi-rigid PVC insulation and overall chrome PVC jacket
- Nominal capacitance: 180pF/m
- Nominal outer diameter: .300"
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
234259CH	9402-100-60	2	100' reel .....	\$59.99	\$56.75	\$53.25
234261CH	9402-U500-60	2	500' unreel box .....	284.99	272.82	250.61
234260CH	9402-1000-60	2	1000' reel .....	546.75	501.22	462.63

**18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire**

- Tinned copper, twisted pair
- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .222"
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
234184CH	8760-100-60	1	100' reel .....	\$34.49	\$28.93	\$27.48
234186CH	8760-500-60	1	500' reel .....	117.75	106.82	97.05
234185CH	8760-1000-60	1	1000' reel .....	218.99	206.74	196.39
234188CH	8760-U500-60	1	500' unreel box .....	99.99	94.99	91.99
234187CH	8760-U1000-60	1	1000' unreel box ..	199.99	189.99	182.99



**Belden COT Paired Line Level Analog Audio Cable****20 AWG stranded (7 x 28) with 20 AWG stranded TC drain wire**

- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: .204"
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
234194CH	8762-100-60	1	100' reel .....	\$23.39	\$21.25	\$19.29
234196CH	8762-500-60	1	500' reel .....	108.59	102.86	97.15
234195CH	8762-1000-60	1	1000' reel .....	205.69	194.28	182.86
234198CH	8762-U500-60	1	500' unreel box ....	108.59	102.86	97.15
234197CH	8762-U1000-60	1	1000' unreel box ..	205.69	194.28	182.86

**16 AWG stranded (19 x 29) shielded with 18 AWG stranded TC drain wire**

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: .313"
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
233146CH	8719-100-60	1	100' reel .....	\$59.99	\$54.99	\$49.99
233154CH	8719-500-60	1	500' reel .....	198.65	180.24	163.88
233162CH	8719-1000-60	1	1000' reel .....	349.99	329.99	309.99
234064CH	8719-U500-60	1	500' unreel box ....	198.65	180.24	163.88
234063CH	8719-U1000-60	1	1000' unreel box ..	349.99	329.99	309.99

**14 AWG stranded (19 x 27) shielded with 16 AWG stranded TC drain wire**

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .355"
- Color: chrome



Part No.	Product No.	No. of Pairs	Description	1	5	10
233171CH	8720-100-60	1	100' reel .....	\$59.99	\$51.55	\$48.97
233189CH	8720-500-60	1	500' reel .....	229.99	214.99	199.99
233197CH	8720-1000-60	1	1000' reel .....	429.99	399.99	389.99
234065CH	8720-U500-60	1	500' unreel box ....	229.99	214.99	199.99

**Paired DataTwist®  
Category 5e UTP Cable****TIA/EIA – 568-B.2, unbonded-pair cable**

- 4 pair unshielded • 24 AWG solid
- Maximum DCR per 100m – 9.38Ω
- Input impedance: 100Ω

**1585A series:**

- Plenum, FEP Teflon® insulation, Flamarrest® jacket
- Nominal outer diameter: .200"

**1583A series:**

- Non-plenum, polyolefin insulation, PVC jacket,
- Nominal outer diameter: .214"

Part No.	Product No.	Color	Description	1	5	10
234092CH	1585A-100-877	Natural	100' reel .....	\$29.99	\$28.49	\$26.99
234094CH	1585A-500-877	Natural	500' reel .....	129.99	114.99	99.99
234093CH	1585A-1000-877	Natural	1000' reel .....	199.99	189.99	179.99
234095CH	1585A-U1000-877	Natural	1000' unreel box ..	199.99	189.99	179.99
234096CH	1585A-U100-D15	Blue	100' unreel box ....	29.99	28.49	26.99
234098CH	1585A-U500-D15	Blue	500' unreel box ....	129.99	114.99	99.99
234097CH	1585A-U1000-D15	Blue	1000' unreel box ..	199.99	189.99	179.99
234089CH	1583A-100-06	Blue	100' reel .....	9.99	9.49	8.99
234176CH	1583A-500-06	Blue	500' reel .....	49.99	44.99	39.99
234090CH	1583A-1000-06	Blue	1000' reel .....	85.69	77.75	70.64
234091CH	1583A-U1000-06	Blue	1000' unreel box ....	85.69	77.75	70.64

**SALE****Multi-Conductor Audio, Control, and  
Instrumentation Cables Non-Plenum****22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: .199"
- Color: chrome



Part No.	Product No.	Conductors	Description	1	5	10
233234CH	8771-100-60	3	100' reel .....	\$29.99	\$25.95	\$24.65
233242CH	8771-500-60	3	500' reel .....	99.49	94.31	89.07
233251CH	8771-1000-60	3	1000' reel .....	188.85	178.14	167.66
234067CH	8771-U500-60	3	500' unreel box ....	99.49	94.31	89.07
234066CH	8771-U1000-60	3	1000' unreel box ..	188.85	178.14	167.66

**22 AWG stranded (7 x 30) unshielded**

- PVC insulation • Color: chrome



8443 Series



8444 Series



8445 Series

Part No.	Product No.	Conductors	Description	1	5	10
232995CH	8442-100-60	2	100' reel .....	\$11.99	\$10.99	\$9.99
233007CH	8442-500-60	2	500' reel .....	51.59	48.91	46.19
233015CH	8442-1000-60	2	1000' reel .....	96.45	92.38	85.69
234054CH	8442-U500-60	2	500' unreel box ....	51.59	48.91	46.19
234053CH	8442-U1000-60	2	1000' unreel box ....	96.45	92.38	85.69
233023CH	8443-100-60	3	100' reel .....	15.69	14.25	12.94
233031CH	8443-500-60	3	500' reel .....	72.75	68.91	65.09
233040CH	8443-1000-60	3	1000' reel .....	137.79	130.17	120.75
234056CH	8443-U500-60	3	500' unreel box ....	72.75	68.91	65.09
234055CH	8443-U1000-60	3	1000' unreel box ..	137.79	130.17	120.75
233058CH	8444-100-60	4	100' reel .....	19.99	18.21	16.54
233066CH	8444-500-60	4	500' reel .....	92.99	88.07	83.19
233074CH	8444-1000-60	4	1000' reel .....	176.19	166.35	154.31
234058CH	8444-U500-60	4	500' unreel box ....	92.99	88.07	83.19
234057CH	8444-U1000-60	4	1000' unreel box ..	176.19	166.35	154.31
233082CH	8445-100-60	5	100' reel .....	25.15	22.76	20.69
233091CH	8445-500-60	5	500' reel .....	111.99	101.80	93.33
233103CH	8445-1000-60	5	1000' reel .....	220.25	207.99	192.96
234060CH	8445-U500-60	5	500' unreel box ....	111.99	101.80	93.33
234059CH	8445-U1000-60	5	1000' unreel box ..	220.25	207.99	192.96

**20 AWG stranded (7 x 28) shielded with 20 AWG stranded TC drain wire**

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: .218"
- Color: chrome



Part No.	Product No.	Conductors	Description	1	5	10
234253CH	8772-U500-60	3	500' unreel box ..	\$132.79	\$120.77	\$110.69
234252CH	8772-U1000-60	3	1000' unreel box ..	241.49	221.39	204.35

**18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire**

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .246"
- Color: chrome



Part No.	Product No.	Conductors	Description	1	5	10
233200CH	8770-100-60	3	100' reel .....	\$59.99	\$54.99	\$49.99
233218CH	8770-500-60	3	500' reel .....	165.65	150.29	136.55
233226CH	8770-1000-60	3	1000' reel .....	299.99	276.09	254.84
234083CH	8770-U500-60	3	500' unreel box ....	165.65	150.29	136.55
234082CH	8770-U1000-60	3	1000' unreel box ..	299.99	276.09	254.84

**Belden® Cable Now at Jameco!**

Professionals don't take chances when it comes to cables, so here's great news. Now you can get your Belden cables from Jameco. The undisputed leader in quality cabling, Belden is the cable of choice for critical applications like Internet, intranet and communication network backbones. We offer the Belden cable of your choice in reels ranging from 100' to 1,000'. You'll find a wide variety of cable types, stranded and solid core, single and multi-conductor, coax, and more. And you'll find them all at very competitive prices, with our fast, efficient service at no extra charge.

Call for OEM pricing

## RG Type Bulk Coaxial Cable

RG58/U & RG58A/U (50Ω): Nom. cap.: 27pF/ft.; center resist.: 10.4Ω/1kft. @ 77°F  
RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/kft. @ 77°F  
RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/kft. @ 77°F  
• Prepackaged and priced in increments of 100' or 1000'

Part No.	Cross Ref. No.	Description	100 ft.	1000 ft.
102226CH	RG58/U	For ethernet, oscilloscopes (solid 20AWG)	\$11.99	\$108.50
116898CH	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	18.99	150.00
102218CH	RG59/U	For CATV & video patch cords (solid 22AWG)	12.99	110.00
112037CH	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	18.99	169.00

## Solid Hook-Up Wire – 22 AWG

• Temp. range: -55°C to +105°C • Passes UL VW-1 flame test  
• MIL-W-16878D type B • Wt.: 100' (0.3 lbs.); 1000' (3.8 lbs.)  
• For use with breadboards such as the JE20 series, pg 242

Part No.	Cross Ref. No.	Color	100 ft.	Part No.	Cross Ref. No.	Color	1000 ft.
36767CH	122BE/C	Blue	\$5.49	36775CH	122BE/K	Blue	\$39.99
36791CH	122BK/C	Black	5.49	36804CH	122BK/K	Black	39.99
36821CH	122G/C	Green	5.49	36839CH	122G/K	Green	39.99
36855CH	122R/C	Red	5.49	36863CH	122R/K	Red	39.99
36880CH	122W/C	White	5.49	36898CH	122W/K	White	39.99
36919CH	122Y/C	Yellow	5.49	36927CH	122Y/K	Yellow	39.99

## Modular Telephone Cable – 28 AWG

• Color coded conductors • Flat modular cable  
• PVC jacket • Gray • 7 x 43 stranded

Part No.	Cross Ref. No.	Conductors	100 ft.	1000 ft.	5000 ft.
103430CH	MTC4	4	\$3.49	\$30.00	\$140.00
103448CH	MTC6	6	7.49	50.00	235.00
103450CH	MTC8	8	9.99	62.00	265.00

## 2-Conductor Stranded Power/Speaker Cable – 24 AWG

• Black wire with white polarity stripe  
• Temperature rating: 20°C to 60°C  
• Stranded copper wire (7 x 32) • Operating voltage: 300V

Part No.	Cross Ref. No.	Wt. (lbs.)	100 ft.	Part No.	Cross Ref. No.	Wt. (lbs.)	1000 ft.
100280CH	224BK/C	0.8	\$5.59	100298CH	224BK/K	7.8	\$39.95

## Category 5 Network Cable

• 100MHz • 8C • 4 twisted pairs • UTP  
• Insulation: polyethylene • Nom. OD.: 0.189"  
• Nom. impedance: 100Ω

Solid: uses modular plug P/N 119343CH, pg 93

Stranded: uses modular plug P/N 79281CH, pg 93

• Prepackaged and priced in increments of 25', 100' or 1000'

### 24 AWG UTP Category 5 Enhanced – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225CH	Solid (gray)	\$4.99	\$17.00	\$100.00
176233CH	Stranded (gray)	5.99	21.00	180.00
201582CH	Stranded (blue)	5.99	18.00	160.00

### 24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118130CH	Stranded (gray) (7/32 AWG)	\$5.95	\$19.35	\$164.50

## Multiconductor Shielded Computer Communication Cable – 24 AWG

• Stranded copper wire, multi-colored insulation  
• Insulated with polyvinyl chloride (PVC)  
• Voltage rating: 300V • Color: gray • 24 AWG (7 x 32 AWG)  
• Shielded 100% w/ aluminum mylar • Drain wire  
• Prepackaged and priced in increments of 25', 100' or 1000'

Part No.	Cross Ref. No.	Conductors	Diameter	25 ft.	100 ft.	1000 ft.
31860CH	SC4	4	0.20"	\$4.75	\$17.00	\$140.00
31878CH	SC9	9	0.23"	11.25	35.00	270.00
31843CH	SC15	15	0.28"	14.75	49.00	430.00
31851CH	SC25	25	0.37"	22.25	71.00	590.00

## UL 1430 Stranded Hook-up Wire

• Temperature rating: 105°C • Voltage: 300V • 18/20 AWG  
• Average wall thickness: .016 • Sold in 100' rolls

Part No.	Gauge	Color	Strands	Dia. (in.)	Dia. (mm)	1	10	25
307918CH	18	Black	19 x 30	.082	2.083	\$12.95	\$11.65	\$10.49
307926CH	18	Red	19 x 30	.082	2.083	12.95	11.65	10.49
305015CH	18	Orange	7 x 26	.082	2.083	12.95	11.65	10.49
305023CH	18	Yellow	7 x 26	.082	2.083	12.95	11.65	10.49
304995CH	20	Yellow	19 x 32	.071	1.803	12.95	11.65	10.49
305007CH	20	Gray	19 x 32	.071	1.803	12.95	11.65	10.49
304979CH	20	Blue	7 x 28	.070	1.778	12.95	11.65	10.49
304987CH	20	Gray	7 x 28	.070	1.778	12.95	11.65	10.49
307897CH	20	Black	7 x 28	.070	1.778	12.95	11.65	10.49
307900CH	20	Red	7 x 28	.070	1.778	12.95	11.65	10.49

## Twisted Pair Cable – 24 AWG

• PVC insulation • Use for hook up wire • Stranded tinned wire (7 x 32)  
• Reduced EMI • Wt.: 100' (0.5 lbs.); 1000' (4.7 lbs.) • 80°C • 300 V

Part No.	Cross Ref. No.	Color	100 ft.	Part No.	Cross Ref. No.	Color	1000 ft.
105911CH	224GW/C	Green/white	\$5.49	105806CH	224GW/K	Green/white	\$44.95
173147CH	224RW/C	Red/white	5.49	173155CH	224RW/K	Red/white	44.95
173163CH	224BW/C	Black/white	5.49	173171CH	224BW/K	Black/white	44.95

## Kynar™ Wire Wrap Wire – 30 AWG

• Assorted color coded insulation • Used for prototyping  
• Color coded Kynar™ (Polyvinylidene Fluoride) insulation  
• Silver plated copper (solid conductor) • UL 1423  
• Temperature: -40°C to +125°C • See pg 111 for sockets  
• Wire wrap tools, pg 230 • Passes UL VW-1 flame test

Part No.	Color	Wt. (lbs.)	100 ft.	Part No.	Color	Wt. (lbs.)	1000 ft.
22541CH	Blue	0.1	\$4.95	22550CH	Blue	0.6	\$29.95
22576CH	Black	0.1	4.95	22584CH	Black	0.6	29.95
22630CH	Red	0.1	4.95	22648CH	Red	0.6	29.95
22664CH	White	0.1	4.95	22672CH	White	0.6	29.95
22605CH	Green	0.1	4.95	22613CH	Green	0.6	29.95
22699CH	Yellow	0.1	4.95	22701CH	Yellow	0.6	29.95

## Gray Flat Ribbon Cable – 28 AWG

• Single edge red stripe for pin 1 orientation  
• Insulation: polyvinyl chloride (PVC) • 28 AWG (7 x 36) • Center spacing: 0.05"  
• Voltage rating: 300V • Stranded copper wire • Temp. rating: -20°C to +80°C  
• Prepackaged and priced in increments of 10', 25', 100' or 500'

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
135538CH	171-10	10	\$1.49	\$3.20	\$11.50	\$47.50
37671CH	171-16	16	2.19	5.00	16.00	70.00
37719CH	171-20	20	3.99	6.25	16.00	65.00
37760CH	171-25	25	3.89	8.75	25.00	110.00
37807CH	171-26	26	3.49	8.00	25.00	120.00
37840CH	171-34	34	4.25	9.25	32.00	120.00
37911CH	171-37	37	5.89	11.75	32.00	125.00
37920CH	171-40	40	7.39	17.50	48.00	215.00
37954CH	171-50	50	6.75	14.50	49.00	210.00
103481CH	171-60	60	8.95	19.75	65.00	285.00

## Multicolor Flat Ribbon Cable – 28 AWG

• Standard 10-color repeat sequence • 28 AWG (7 x 36)  
• Center spacing: 0.05" • Voltage rating: 300V  
• Temp. rating: -20°C to +80°C • Stranded copper wire  
• Prepackaged and priced in increments of 10', 25', 100' or 500'

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
112547CH	28RC10	10	\$1.95	\$4.50	\$17.50	\$70.00
105671CH	28RC16	16	3.25	7.25	24.00	100.00
105689CH	28RC20	20	3.95	9.00	30.00	135.00
105697CH	28RC25	25	6.29	14.25	49.95	219.95
105700CH	28RC34	34	6.99	14.75	49.00	225.00
105726CH	28RC40	40	8.69	19.55	69.49	299.95
105718CH	28RC50	50	10.95	24.95	85.95	384.95

## UL 1007 Stranded Hook-Up Wire 300 Volts

- 80°C • PVC insulation • CSA: TR-64
- 22 AWG (7x30)<sup>1</sup>; 20 AWG (10x30)<sup>2</sup>; 18 AWG (16x30)<sup>3</sup>
- Temperature range: -40°C to +80°C • Sold in 100' rolls

Part No.	Cross Ref.	Color	Wt. (lbs.)	1	5	Part No.	Cross Ref.	Color	Wt. (lbs.)	1	5
126084CH	223SBK/C <sup>1</sup>	Black	0.4	\$3.39	\$3.19	310893CH	UL1007-20-GR-C <sup>2</sup>	Green	1.0	\$4.95	\$4.75
126033CH	223SR/C <sup>1</sup>	Red	0.4	3.39	3.19	310914CH	UL1007-20-YL-C <sup>2</sup>	Yellow	1.0	4.95	4.75
126076CH	223SW/C <sup>1</sup>	White	0.4	3.39	3.19	310922CH	UL1007-20-BL-C <sup>2</sup>	Blue	1.0	4.95	4.75
310851CH	UL1007-22-GR-C <sup>1</sup>	Green	1.0	3.39	3.19	125786CH	183SBK/C <sup>3</sup>	Black	0.8	5.79	5.55
310877CH	UL1007-22-YL-C <sup>1</sup>	Yellow	1.0	3.39	3.19	125735CH	183SR/C <sup>3</sup>	Red	0.8	5.79	5.55
310885CH	UL1007-22-BL-C <sup>1</sup>	Blue	1.0	3.39	3.19	125751CH	183SW/C <sup>3</sup>	White	0.8	5.79	5.55
125840CH	203SBK/C <sup>2</sup>	Black	0.6	4.95	4.75	310931CH	UL1007-18-GR-C <sup>3</sup>	Green	1.0	5.79	5.55
125794CH	203SR/C <sup>2</sup>	Red	0.5	4.95	4.75	310949CH	UL1007-18-YL-C <sup>3</sup>	Yellow	1.0	5.79	5.55
125831CH	203SW/C <sup>2</sup>	White	0.5	4.95	4.75	310957CH	UL1007-18-BL-C <sup>3</sup>	Blue	1.0	5.79	5.55

See page 265 for our  
NEW Floppy Drive Cables

## Disk Drive Cables

Quantity SAVE



Part No.	Description	Cable Length	1	10	100
185084CH	34-pin header socket ribbon cable for floppy drive	25"	\$1.19	\$ .99	<b>\$.75</b>
185068CH	34-pin header socket ribbon cable for floppy to card	9"	2.95	2.51	1.88
32918CH	34-pin header socket ribbon cable for floppy to card	23"	3.49	2.99	<b>2.25</b>
185076CH	40-pin IDE hard drive cable to card	14"	.79	.65	<b>.49</b>
32686CH	40-pin IDE hard drive cable to card	18"	3.95	3.49	2.95
72805CH	Two 40-pin header socket ribbon cable for IDE drive	18"	3.69	3.14	<b>2.35</b>
175492CH	40-pin header socket ribbon cable for ultra DMA66/100	17"	6.95	6.25	5.49

## Internal and External SCSI Cables for Complete Connectivity

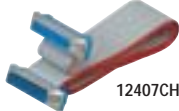


- For PC/XT/AT and compatibles
- All lines connected

Part No.	Description	1	10	100
32715CH	50-pin header socket ribbon cable SCSI-I (18")	\$3.95	\$3.49	\$2.95
137550CH	68-pin header internal ribbon cable SCSI-III (27")	12.49	11.25	10.15
118084CH	Male 50-pin Centronics to male HPDB50 cable SCSI-I to SCSI-II (6')	11.29	10.25	9.35
118076CH	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (6')	17.95	15.95	13.95

## Ribbon Cable Assemblies

- Metal connector
- 300V rating
- 105°C rating
- 28 AWG flat cable
- Tin-plated contacts



Part No.	Description	1	10	100
12407CH	4' DB25 M-F	\$4.49	\$3.95	\$3.59
208581CH	6' DB9 M-F	3.95	3.55	3.19

## PC/XT/AT & PS/2 Keyboard Extension Cables

- Color: beige
- 114981CH/112045CH/:
- 5-pin DIN male-to-female
- 28548CH/111053CH:
- 6-pin mini DIN female-to-male

Quantity SAVE



Part No.	Description	1	10	100
114981CH	PC/XT/AT 6' non-coiled	\$1.99	\$1.69	<b>(\$1.27)</b>
112045CH	PC/XT/AT 10' non-coiled	3.95	3.36	<b>2.52</b>
28548CH	PS/2 6' non-coiled	4.35	3.89	3.49
111053CH	PS/2 10' non-coiled	5.49	4.99	4.39

## AT-to-PS/2 and PS/2-to-AT Keyboard Adapter Cables

28003CH/319783CH:

- Connects AT-type keyboards to PS/2
- 5-pin female DIN to 6-pin male mini DIN



310789CH:

- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors

Part No.	Length	Color	1	10	100
319783CH	4.5"	Black	\$2.45	\$2.19	\$1.99
28003CH	6.5"	Beige	3.95	3.49	3.15
310789CH	7.5"	Beige	3.95	3.49	3.15

## Dual PS/2 Adapter

- Converts a dual PS/2 female to a single PS/2 male.
- Size: 1.9"L x 1.2"W

NEW



Part No.	Description	1	10	100
319791CH	PS/2 adapter	\$2.75	\$2.59	\$2.45

## 3.5" Disk Drive Power Adapter Cable

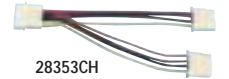
- IBM PC/XT and higher compatibles
- Allows connection of standard 3.5" disk drives to power supplies



Part No.	Length	AWG	1	10	100
28396CH	3.5"	22	\$2.49	\$2.25	\$1.95

## 3.5" & 5.25" Disk Drive Power Splitters

- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females



Part No.	Drive	AWG	Length	1	10	100
28353CH	5.25"	18	5"	\$2.95	\$2.69	\$2.39
277528CH	5.25"	20	6"	2.85	2.59	2.25
72303CH	3.5"	22	5"	2.75	2.49	2.19

## AT/ATX Power Supply Extension Cables

348891CH

- For use with 12-pin AT power supplies

NEW



326490CH/170237CH

- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply

Lower \$\$\$



Part No.	Length	AWG	1	10	100
348891CH	9.75"	18	\$1.89	\$1.78	\$1.69
326490CH	13"	18	5.35	5.09	4.79
170237CH	15"	18	5.95	5.65	5.35

## IEEE 1284 Parallel/ Serial High Speed Cables

Compatible with bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.

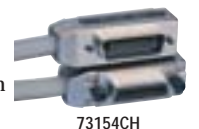
- Double shielded with 28 AWG stranded twisted pair inner conductors
- Molded shells, PVC plastic
- Color: beige (P/N 130067CH/319767CH); black (P/N 161630CH); gray (P/N 223845CH)
- Weight: 0.6 lbs.



Part No.	Description	1	10
130067CH	6' DB25 M-Cent. parallel 36M...	\$11.95	\$10.95
319767CH	6' DB25 M-Cent. parallel 36M	4.95	4.69
223845CH	6' DB25 M-Cent. parallel 36M	11.95	10.95
161630CH	10' DB25 M-M serial cable	14.95	13.49

## IEEE 488 Cables

A variety of cable lengths are offered to ensure that IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 with stackable 24-pin GPIB connectors on both ends. • Color: gray



Part No.	Description	Wt. (lbs.)	1	10	25
73154CH	1 meter	0.8	\$36.49	\$32.79	\$29.49
115781CH	2 meter	1.2	37.95	34.19	30.95
115801CH	4 meter	2.0	38.95	36.19	31.95



## RGB Video Cables

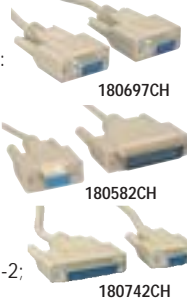
- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDDB15-pin male • Weight: 0.9 lbs.



Part No.	Description	1	10	25
73648CH	6' cable (black)	\$19.95	\$16.99	\$12.75
118068CH	10' cable (black)	23.35	19.85	14.89

## Serial Null Modem Cables

- Molded type connectors
- Color: gray
- 181403CH/180697CH Pin outs:  
1 & 6-4, 2-3, 3-2, 4-6 & 1, 5-5, 7-8, 8-7
- 181438CH Pin outs: 2-2; 3-3; 5 & 6-4; 7-5; 8-7; 20-6 & 8 (Serial printer null modem)
- 180582CH Pin outs: 2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8; (Serial printer null modem)
- 180742CH Pin outs: 1-4 & 5; 2-2; 3-3; 4-6; 5-7; 6-20; 7-8; 8-8



Part No.	Description	Wt. (lbs.)	1	10	50
181403CH	6' DB9 F to DB9 F	0.3	\$5.69	\$5.09	\$4.59
180697CH	10' DB9 F to DB9 F	0.4	6.79	6.09	5.49
181438CH	6' DB25 M to DB9 F	0.4	4.95	4.49	3.95
180582CH	10' DB25 M to DB9 F	0.4	6.69	6.05	5.45
180742CH	10' DB25 F to DB9 F	0.5	7.39	6.65	5.99

## VGA Monitor Cables

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male



Part No.	Description	1	10	100
66173CH	6' monitor cable	\$6.49	\$5.89	\$5.29
148523CH	10' monitor cable	6.95	6.25	5.59

## 9-Pin Monitor Cable

- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- IBM PC/XT and higher compatibles



Part No.	Description	1	10	100
66157CH	6' DB9 M-M	\$4.45	\$3.95	\$3.55

## VGA Monitor Extension Cables

- Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles
- 134041CH: • HDDB15 female w/ hex nuts and HDDB15 male w/ thumbscrews
- 66165CH/148531CH: • Thumbscrews on each end



Part No.	Description	1	10	100
134041CH	6' screws/hex nuts	\$4.49	\$3.95	\$3.49
66165CH	6' thumbscrews	6.59	5.95	5.35
148531CH	10' thumbscrews	7.49	6.79	5.99

## Macintosh® Printer Cables

- 6' mini DIN8M
- 10' mini DIN8M



Part No.	Description	1	10	50
10604CH	6' mini DIN8M	\$3.29	\$3.15	\$2.99
130024CH	10' mini DIN8M	5.99	5.39	4.85

## DA15 Extension Cables

- Molded connectors
- Straight through
- Thumbscrews
- Color: gray (237032CH: black)



Part No.	Description	Length	1	10	100
181286CH	DA15 M-M	6'	\$5.49	\$4.95	\$4.45
181358CH	DA15 M-F	6'	5.49	4.95	4.45
237032CH	DA15 M-F	8'	6.99	5.95	4.45

## DB25-to-Centronics Parallel Printer Cables

- Molded and fully shielded DB25 male and 36-pin Centronics male connectors
- IBM PC/XT and higher compatibles



Part No.	Description	Wt. (lbs.)	1	10	100
28716CH	6' straight	0.4	\$4.69	\$4.25	\$3.85
223845CH	6' straight	0.6	11.95	10.95	9.75
123781CH	10' straight	0.6	5.95	5.09	3.79
164777CH	10' right angle*	0.7	4.95	4.45	3.95
28708CH	15' straight	0.8	5.95	5.09	3.79
101899CH	25' straight	1.1	5.95	5.09	3.79

\* Centronics right angle

## 37-Pin Straight Through Cable Adapters

- Molded connectors • Color: gray • Weight: 0.9 lbs.



Part No.	Description	1	10	100
180611CH	6' DC37 M-M	\$6.95	\$6.29	\$5.65
181294CH	6' DC37 M-F	5.95	5.49	4.95

## Monitor/Mouse/Keyboard Cables

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, and DB9 male/female for mouse



Part No.	Description	Wt. (lbs.)	1	10
141284CH	6' cable	1.6	\$22.95	\$19.95
141276CH	32' cable	4.8	39.95	35.95

## Switch Box Adapter Cables

- 177261CH: Male to male non-coiled cable for P/N 79177CH switch box, pg 201
- 114913CH: Male to male coiled cable for P/N 114155CH switch box, pg 201
- 174772CH: Male to male 174908CH/205655CH: Male to male non-coiled
- 112627CH: Male to male non-coiled cable for P/N 79177CH switch box, pg 201



Part No.	Description	Length	1	10	50
114913CH	5-pin DIN	5' (gray)	\$4.95	\$4.49	\$3.95
177261CH	6-pin mini DIN	2' (gray)	2.95	2.55	1.89
174772CH	6-pin mini DIN	6' (black)	4.95	4.25	3.19
174908CH	6-pin mini DIN	6' (gray)	5.75	5.15	4.65
112627CH	6-pin mini DIN	10' (beige)	7.95	7.25	6.49
205655CH	6-pin mini DIN	25' (beige)	8.95	7.95	6.95

## DB9 Extension Cables



- All lines connected straight through
- 132345CH/196365CH: DB9 female to DB9 female cable with thumbscrews
- 326502CH/199638CH/25700CH/148515CH: DB9 male to DB9 female cable with thumbscrews
- 181665CH: DB9 male to DB9 male cable

Part No.	Description	1	10	100	1000
326502CH	3' M-F	\$3.95	\$3.75	\$3.55	\$3.15
132345CH	6' F-F	4.95	4.49	3.95	3.49
199638CH	6' M-F (black)	4.49	3.95	3.49	2.95
25700CH	6' M-F	4.95	4.49	3.95	3.49
196365CH	10' F-F	6.95	6.25	5.59	4.95
148515CH	10' M-F	7.49	6.79	5.99	4.95
181665CH	10' M-M	6.95	6.25	5.59	4.95

## 9-Pin Test Cable

- DB9 M to DB9 F (6')
- Pin outs: 1-3, 2-2, 4-5



Part No.	Description	1	10	100
162915CH	DB9 male to DB9 female	\$2.95	\$2.51	\$1.88

## DB9-to-DB25 AT-Adapter Serial Cables

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors



Part No.	Description	1	10	100
109583CH	1' serial, beige	\$4.35	\$3.95	\$3.49
189333CH	3' serial, beige	3.95	3.39	2.55
207790CH	4' serial, beige	2.35	2.15	1.95
31721CH	6' serial, beige	3.89	3.55	3.15
191361CH	6' serial, gray	4.39	3.99	3.15
155521CH	10' serial, beige	3.95	3.55	3.15

## DB25 Extension Cables

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns 174001CH/175290CH: black\*



Part No.	Description	Wt. (lbs.)	1	10	50	100
281551CH	3' M-M	0.4	\$4.45	\$4.25	\$3.99	\$3.79
174001CH	3' M-M*	0.6	4.79	4.35	3.89	3.49
65787CH	6' M-M	0.5	6.49	5.89	5.29	4.89
39538CH	10' M-M	0.7	6.95	6.29	5.05	3.69
179979CH	15' M-M	1.2	6.95	6.29	5.05	3.65
67070CH	25' M-M	1.4	10.95	9.95	8.95	7.95
180435CH	50' M-M	3.6	14.95	13.49	11.95	9.95
164291CH	3' M-F	0.4	4.29	3.89	3.49	2.95
175290CH	3' M-F*	0.4	2.95	2.69	2.25	1.59
163133CH	5' M-F	0.6	5.29	4.75	4.29	3.85
67256CH	6' M-F	0.6	6.45	5.79	5.25	4.69
39511CH	10' M-F	0.7	6.95	6.29	5.05	3.69
177279CH	15' M-F	1.0	9.49	8.55	7.69	6.25
101995CH	25' M-F	1.4	11.95	10.79	9.69	7.95
181201CH	50' M-F	3.2	17.95	14.39	10.79	8.09
224266CH	6' F-F	0.7	4.95	3.95	2.95	2.09

## USB-A Cables with Bracket

- Supports data transfer rates of 12Mbps
- Allows connection of two devices
- Dual USB-A female connectors • 8" long

**Lower \$\$\$**

144813CH

Part No.	Description	1	10	25
144813CH	Female panel mount	\$3.95	\$3.75	\$3.55
319652CH	Male panel mount	3.95	3.75	3.55

## ATEN USB-to-Centronics Printer Cable

**SALE**

- Full compliance with the USB spec V.1.0
- USB-A male to 36-pin male centronics connector
- Supports true bidirectional communication
- Applicable to standard and bidirectional printers

Part No.	Description	1	10	25
155352CH	6' USB cable	\$23.75	\$22.56	\$21.43

## USB to Serial Adapter with Prolific Chipset

This USB serial adapter provides an external Plug-and-Play RS-232 port for computers, notebooks, laptops, and handheld computing devices. Provides high-quality serial connections at transfer rates of more than 500kbs.

- Frees existing RS-232 ports for other uses
- Supports RS-232 serial interface, automatic hand-shake mode, remote wake-up & power management
- Provides a 96-byte buffer for each upstream and downstream data transfer • Weight: 1.5 lbs.
- Full compliance with USB specification v 1.1
- 7" cable with DB25 male connector and 14" cable with USB-A connector • Size: 2.7"L x 1.6"W x 0.7"H

**System requirements:** Windows®98/2000, USB host controlled installed in the system

**Includes:** 3.5" software and manual

Part No.	Description	1	5
213006CH	USB-A to serial converter	\$29.95	\$27.95

## Save Big! Special Values!

New Lower Price = Orange  
Sale Priced Items = Yellow  
Exceptional Quantity Discounts = Green

## Flexible USB Cable and Adapter

FlexUSB™ is a compact, lightweight accessory that bends, rotates, and flexes to your desired angle. It provides a means to position USB devices, allowing you to use it with any computer, even in the most cramped environment. Its unique ratcheting design makes it possible to position your USB devices that are compatible with both Windows® and MAC platforms.

Part No.	Description	1	5
262078CH	Flexible USB adapter A M-F	\$10.95	\$9.85
262158CH	Flexible USB cable with A-M to B-M connectors	11.95	10.85

**NEW**

Flexible USB cables and adapters make plugging in cables an ease, especially in tight spots!

## USB Gender Adapters

**NEW**

Part No.	Description	Dimensions	1	10	25
321251CH	USB-A male to USB-A male	1.9"L x 0.6"W	\$2.79	\$2.65	\$2.39
169383CH	USB-A male to USB-B female	1.3"L x 0.4"W	2.69	2.49	2.25
169375CH	USB-A female to USB-B male	1.7"L x 0.6"W	2.69	2.49	2.25
316806CH	USB-A female to USB-A female	1.5"L x 0.7"W	2.69	2.49	2.25
321699CH	USB-B male to USB-B male	2.0"L x 0.4"W	2.79	2.65	2.49
316822CH	USB-B female to USB-B female	1.4"L x 0.7"W	2.69	2.49	2.25

316806CH

316822CH

## Retractable Firewire Cables

Carrying all those extra cables for your computer peripherals such as printers, cameras, zip drives, external hard drives, adds weight and gets tangled in your computer bag. With these retractable Firewire cables, you can easily store them in an inside pocket of your bag, plus they are tangle free. Just pull the cable on both ends of the spool and you have a high quality cable that extends to over 2'. Simply pull again and it retracts back into its housing.

Part No.	Description	Price
227424CH	6-pin M - 4-pin M 400Mbps	\$6.75
227459CH	6-pin M - M 400Mbps	6.75

## IEEE 1394 Firewire Cables



175821CH

175839CH

175847CH

Connect your computer to the latest high speed Firewire peripherals.

- IEEE-1394 compliant • UL approved
- Molded connectors

### 4-pin Male to 4-pin Male

Part No.	Description	1	10	25
222631CH	3' cable black	\$5.99	\$5.39	\$4.99
175821CH	6' cable black	7.99	6.99	5.99
222244CH	10' cable black	9.99	8.99	7.99
222252CH	15' cable black	12.99	11.69	10.49

### 4-pin Male to 6-pin Male

Part No.	Description	1	10	25
222623CH	3' cable black	\$5.99	\$5.39	\$4.99
175839CH	6' cable black	7.99	6.99	5.99
22228CH	10' cable black	9.99	8.99	7.99
222236CH	15' cable black	12.99	11.69	10.49

### 6-pin Male to 6-pin Male

Part No.	Description	1	10	25
222615CH	3' cable black	\$5.99	\$5.39	\$4.99
175847CH	6' cable black	7.99	6.99	5.99
222201CH	10' cable black	9.99	8.99	7.99
222210CH	15' cable black	12.99	11.69	10.49

## USB 2.0 Cables



USB-A (M) to USB-A (M)

USB-A (M) to USB-B (M)

USB-A (M) to USB-A (F)

- Higher transfer rate up to 480Mbps
- Backward compatible w/ USB 1.1 pro



### USB-A Male to USB-A Male

Part No.	Description	1	10	25
326473CH	3' cable beige	\$1.55	\$1.39	\$1.29
229681CH	6' cable beige	1.65	1.49	1.39
222033CH	6' cable black	1.65	1.49	1.39
229551CH	6' cable clear	1.65	1.49	1.39
229690CH	10' cable beige	1.89	1.75	1.65
222041CH	10' cable black	1.89	1.75	1.65
229569CH	10' cable clear	1.89	1.75	1.65
229702CH	15' cable beige	2.85	2.59	2.49
222050CH	15' cable black	2.85	2.59	2.49
229577CH	15' cable clear	2.85	2.59	2.49

### USB-A Male to USB-B Male

Part No.	Description	1	10	25
229711CH	3' cable beige	\$1.55	\$1.39	\$1.29
222607CH	3' cable black	1.55	1.39	1.29
229585CH	3' cable clear	1.55	1.39	1.29
229729CH	6' cable beige	1.65	1.49	1.39
222009CH	6' cable black	1.65	1.49	1.39
229593CH	6' cable clear	1.65	1.49	1.39
229737CH	10' cable beige	1.89	1.75	1.65
222017CH	10' cable black	1.89	1.75	1.65
229606CH	10' cable clear	1.89	1.75	1.65
229761CH	15' cable beige	2.85	2.59	2.49
222025CH	15' cable black	2.85	2.59	2.49
229614CH	15' cable clear	2.85	2.59	2.49

### USB-A Male to USB-A Female

Part No.	Description	1	10	25
326481CH	3' cable beige	\$1.55	\$1.39	\$1.29
229770CH	6' cable beige	1.65	1.49	1.39
222068CH	6' cable black	1.65	1.49	1.39
229622CH	6' cable clear	1.65	1.49	1.39
229788CH	10' cable beige	1.89	1.75	1.65
222076CH	10' cable black	1.89	1.75	1.65
229631CH	10' cable clear	1.89	1.75	1.65
229796CH	15' cable beige	2.85	2.59	2.49
222084CH	15' cable black	2.85	2.59	2.49
229649CH	15' cable clear	2.85	2.59	2.49

## USB 1.1 Cables

### USB-A Male to USB-B Male

Part No.	Description	1	10	25
308726CH	5' cable (black)	\$3.89	\$3.49	\$3.15
169359CH	6' cable	4.95	4.49	3.95

169359CH

## USB Keyboard Adapter

### USB to PS/2

- USB-A female to 6-pin mini DIN male (PS/2)

Part No.	Description	1	10	25
316831CH	USB-A to PS/2	\$1.79	\$1.59	\$1.39





## Category 5e Network Cables

- UTP
- 8P8C
- 4 pair
- 24 AWG (7 x 43) stranded
- "Snagless" boot
- Color coded for easy wire tracing
- High-flexibility
- Achieve optimum system performance



### Category 5e (350MHz)

Part No.	Length	Color	1	10	100
168292CH	3 ft.	Gray .....	\$1.79	\$1.49	\$1.39
168305CH	7 ft.	Gray .....	2.99	2.59	2.39
168313CH	15 ft.	Gray .....	5.29	4.39	3.99
168321CH	25 ft.	Gray .....	7.99	6.79	6.39
201777CH	3 ft.	Red .....	1.79	1.49	1.39
201785CH	7 ft.	Red .....	2.99	2.59	2.39
201793CH	15 ft.	Red .....	6.95	5.95	4.45
201806CH	25 ft.	Red .....	7.99	6.79	6.39
201697CH	3 ft.	Black .....	1.79	1.49	1.39
201700CH	7 ft.	Black .....	2.99	2.59	2.39
201718CH	15 ft.	Black .....	5.29	4.39	3.99
201726CH	25 ft.	Black .....	7.99	6.79	6.39
201734CH	3 ft.	Blue .....	1.79	1.49	1.39
201742CH	7 ft.	Blue .....	2.99	2.59	2.39
201751CH	15 ft.	Blue .....	5.29	4.39	3.99
201769CH	25 ft.	Blue .....	7.99	6.79	6.39
201814CH	3 ft.	Yellow .....	1.79	1.49	1.39
201822CH	7 ft.	Yellow .....	2.99	2.59	2.39
201831CH	15 ft.	Yellow .....	5.29	4.39	3.39
201849CH	25 ft.	Yellow .....	7.99	6.79	6.39

### Category 5 (100MHz)

Part No.	Length	Color	1	10	100
281261CH	7 ft.	Gray .....	\$2.49	\$2.39	\$2.25
281455CH	25 ft.	Gray .....	4.35	4.15	3.95
277641CH	6 ft.	Red .....	2.49	2.25	1.99
277659CH	12 ft.	Black .....	2.99	2.69	2.45
203051CH	10 ft.	Blue .....	2.75	2.15	1.59
277675CH	12 ft.	Blue .....	2.99	2.69	2.45
277616CH	6 ft.	Yellow .....	2.49	2.25	1.99
277667CH	12 ft.	Yellow .....	2.99	2.69	2.45

## Bulk Modular Network Cables

- 8 Conductor
  - UTP
  - 4 twisted pairs
  - Insulation: polyethylene
  - Nom. OD.: 189"
  - Nominal impedance: 100Ω
- Solid: uses modular plug P/N 119343CH, pg 93  
Stranded: uses modular plug P/N 79281CH, pg 93  
118130CH/201646CH: 7/32 AWG  
• Prepackaged and priced in increments of 25', 100' or 1000'



### 24 AWG UTP Category 5e – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225CH	Solid (gray) .....	\$4.99	\$17.00	\$100.00
201603CH	Solid (blue) .....	4.99	14.00	90.00
176233CH	Stranded (gray) .....	5.99	21.00	180.00
201574CH	Stranded (red) .....	5.99	18.00	160.00
201591CH	Stranded (black) .....	5.99	18.00	160.00
201582CH	Stranded (blue) .....	5.99	18.00	160.00
201566CH	Stranded (yellow) .....	5.99	18.00	160.00

### 24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118130CH	Stranded (gray) .....	\$5.95	\$19.35	\$164.50
201646CH	Stranded (black) .....	5.49	15.00	140.00

## CAT 5e Crossover Cables

- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors
- 4-pair • 8P8C • UTP



Part No.	Description	1	10	100
302041CH	6' cable RJ45 .....	\$3.75	\$3.39	\$3.05
169261CH	10' cable RJ45 .....	6.95	6.25	5.59

## Keystone-Type Wall Plates

- Size: 2.8"W x 4.5"H

Quantity SAVE

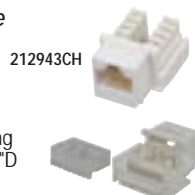
Part No.	No. of ports	Color	1	10	100
195549CH	1	Ivory	\$1.25	\$1.15	\$ .99
195557CH	2	Ivory	1.25	1.15	.99
195565CH	3	Ivory	1.25	1.05	.79
195573CH	4	Ivory	1.25	1.05	.79
212978CH	1	White	1.25	1.15	.99
212994CH	2	White	1.25	1.15	.99
212986CH	3	White	1.25	1.15	.99
212960CH	4	White	1.25	1.15	.99
213508CH	Hole Filler	White	.29	.25	.19



## Modular RJ-45 & RJ-11 Jacks

### Punchdown Keystone Type

- Removable jacks used in wall plates (clip in)
- CAT 5e classification
- Punchdown type wiring connections with color coding
- Size: 0.57"W x 0.63"H x 1.23"D
- RJ45: 8P8C RJ11: 6P6C



### RJ45

Part No.	Color	1	10	100
195590CH	Red	\$3.75	\$3.55	\$3.19
195602CH	Yellow	3.75	3.55	3.19
195611CH	Green	3.75	3.19	2.39
195629CH	Black	3.75	3.55	3.19
195637CH	Ivory	3.75	3.38	2.99
212951CH	Blue	3.75	3.55	3.19
212943CH	White	3.75	3.55	3.19

### RJ11

Part No.	Color	1	10	100
213524CH	Black	\$3.75	\$3.55	\$2.99
213516CH	White	3.75	3.55	3.19

## BNC/F-Type Jacks

- Removable jacks used in wall plates (see above)
- Clip on for easy installation on wall plates
- Keystone type

SALE



Part No.	Description	Color	1	10	100
195645CH	F-Type F to F	Ivory	<del>\$1.39</del>	\$ .99	\$ .90
224645CH	F-Type F to F	White	<del>\$1.39</del>	.99	.83
224637CH	BNC F to F	White	<del>\$2.29</del>	1.55	1.41

Blue Part No. = Limited Quantity Available

## RJ11 Retractable Cable

This RJ11 cable extends up to 8'. And when you pack up, give it a tug and it retracts into its lightweight, rugged case like a windowshade. It's completely tangleproof.

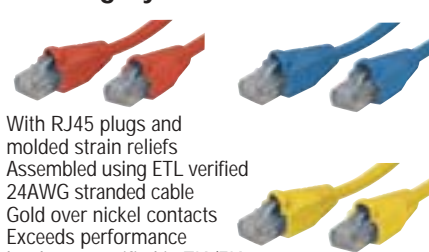


NEW

Part No.	Description	Price
233349CH	RJ11 retractable cable .....	\$2.95

## Category 6 Network Cables

- With RJ45 plugs and molded strain reliefs
- Assembled using ETL verified 24AWG stranded cable
- Gold over nickel contacts
- Exceeds performance levels as specified in TIA/EIA 568B.2-1 Category 6 draft 8



### Category 6

Part No.	Length	Color	1	10	50
219707CH	3 ft.	Gray .....	\$2.79	\$2.69	\$2.56
219715CH	7 ft.	Gray .....	3.99	3.87	3.68
219723CH	14 ft.	Gray .....	6.59	6.37	6.05
219731CH	25 ft.	Gray .....	9.39	8.92	8.47
219740CH	50 ft.	Gray .....	14.29	13.58	12.90
219854CH	3 ft.	Blue .....	2.79	2.69	2.56
219862CH	7 ft.	Blue .....	3.99	3.87	3.68
219871CH	14 ft.	Blue .....	6.59	6.37	6.05
219889CH	25 ft.	Blue .....	9.39	8.92	8.47
219897CH	50 ft.	Blue .....	14.29	13.58	12.90
220003CH	3 ft.	White .....	2.79	2.69	2.56
220011CH	7 ft.	White .....	3.99	3.87	3.68
220020CH	14 ft.	White .....	6.59	6.37	6.05
220038CH	25 ft.	White .....	9.39	8.92	8.47
220046CH	50 ft.	White .....	14.29	13.58	12.90
219900CH	3 ft.	Red .....	2.79	2.69	2.56
219918CH	7 ft.	Red .....	3.99	3.87	3.68
219926CH	14 ft.	Red .....	6.59	6.37	6.05
219934CH	25 ft.	Red .....	9.39	8.92	8.47
219942CH	50 ft.	Red .....	14.29	13.58	12.90
219803CH	3 ft.	Green .....	2.79	2.69	2.56
219811CH	7 ft.	Green .....	3.99	3.87	3.68
219820CH	14 ft.	Green .....	6.59	6.37	6.05
219838CH	25 ft.	Green .....	9.39	8.92	8.47
219846CH	50 ft.	Green .....	14.29	13.58	12.90
219758CH	3 ft.	Black .....	2.79	2.69	2.56
219766CH	7 ft.	Black .....	3.99	3.87	3.68
219774CH	14 ft.	Black .....	6.59	6.37	6.05
219782CH	25 ft.	Black .....	9.39	8.92	8.47
219791CH	50 ft.	Black .....	14.29	13.58	12.90
219951CH	3 ft.	Yellow .....	2.79	2.69	2.56
219969CH	7 ft.	Yellow .....	3.99	3.87	3.68
219977CH	14 ft.	Yellow .....	6.59	6.37	6.05
219985CH	25 ft.	Yellow .....	9.39	8.92	8.47
219993CH	50 ft.	Yellow .....	14.29	13.58	12.90

## 3M Tool-Less Modular RJ-45 Jack with Dust Door

A unique and simple CAT5e hardware component (TIA/EIA-568 B.2) utilizing the universally accepted keystone mount. It offers a quick and reliable tool-less connection as the eight conductors are effortlessly terminated in a single operation.



- UL verified TIA/EIA-568 B.2 CAT5e
- Tool-less connector
- Keystone mount • Integral shutter
- Top or bottom cable insertion
- Self-stripping contacts

SALE

Part No.	Product No.	1	10	100
263071CH	VOL-OCK5E-U-W	<del>\$6.89</del>	\$5.55	\$4.99



**JAMECO** ValuePro

## Modular Plugs



P = No. of positions C = No. of contacts  
 W/E = Western Electric type number

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	W/E	1	10	100	1000
103491CH	4P4C (handset)	616	*	\$ .11	\$ .099	\$ .089
79290CH	6P4C (RJ11)	623	*	.12	.11	.095
79273CH	6P6C (RJ11)	623	*	.22	.195	.18
79281CH	8P8C (RJ45) (for stranded wire)	641	.35	.28	.24	.20
119343CH	8P8C (RJ45) unshielded (for solid wire)	—	.49	.44	.35	.28
116610CH	8P8C (RJ45) shielded	—	1.09	.99	.89	.79
204222CH	8P8C (RJ45) shielded (for STP solid wire)	—	.95	.89	.79	.75
204231CH	8P8C (RJ45) shielded (for STP stranded wire)	—	1.55	1.49	1.15	.95
116601CH	8P8C (RJ45) shielded (for solid wire)	—	.99	.79	.65	.49
180646CH	10P10C (for stranded wire)	—	1.39	1.15	.82	.69

**JAMECO** ValuePro

## Modular Jacks



- Voltage rating: 150VAC max.
- Contact current rating: 1.5A max. @ 25°C
- Durability: 750 mating cycles • PC mount

W/E = Western Electric type number

Part No.	Description	W/E	1	10	100
199620CH	4P4C (handset) .48"W	—	\$ .36	\$ .33	\$ .30
115128CH	4P4C (handset) .395"W	—	.37	.34	.31
151765CH	6P4C (RJ11) side flange AMP	—	.45	.43	.39
105945CH	6P4C (RJ11) top flange	623	.62	.56	.45
204206CH	6P4C (RJ11) lead wires	—	1.09	.99	.89
115836CH	6P6C (RJ11) side flange	—	.74	.67	.59
204177CH	6P6C (RJ11) dual	—	1.49	1.35	1.19
124038CH	6P6C (RJ11) 6" leads	—	1.25	1.15	.99
115844CH	8P8C (RJ45)	641	.48	.44	.40
204214CH	8P8C (RJ45) .81"L	—	1.19	1.09	.95
203449CH	8P8C (RJ45) shielded Pin spacing "A" = .055"	—	1.19	.99	.85

**JAMECO** ValuePro

## RJ45-Plug Color Caps (Boots)

Part No.	Color	10	100	500	1000
204409CH	Black	\$ .14	\$ .13	\$ .12	\$ .09
204388CH	Yellow	.14	.12	.098	.073
204353CH	Gray	.14	.13	.12	.095
204361CH	Blue	.14	.12	.098	.073
204425CH	Red	.14	.12	.11	.091
204396CH	Green	.14	.12	.098	.073
204370CH	Ivory	.14	.12	.098	.073

Color Code Legend  
 New Sale Lower\$ QtySave

**JAMECO** ValuePro

## Modular Couplers and Adapters



Style 1 Reverse wiring for telephone systems

Style 2 Straight wiring for networking/printer sharing

Part No.	Description	Fig.	1	10	100
72207CH	6P4C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P4C), 2 female modular receptacles (6P4C) RJ11	2	\$ .99	\$ .89	\$ .80
71757CH	6P6C modular coupler, Style 1, RJ11	1	.95	.86	.79
135087CH	6P6C modular coupler, Style 2, RJ11	1	.99	.89	.79
181091CH	6P6C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P6C), 2 female modular receptacles (6P6C) RJ11	2	.99	.89	.78
118501CH	8P8C modular coupler, Style 1, RJ45	1	1.85	1.75	1.55
135079CH	8P8C modular coupler, Style 2, RJ45	1	1.39	1.25	1.15
153023CH	8P8C modular coupler, Style 2 (for Cat. 5) RJ45	3	7.99	7.19	6.49

## Modular Jack Boxes & Wall Plate



Part No.	Description	Fig.	1	10	100
72311CH	6P6C & 8P8C double wall jack plate w/ jacks (beige)	1	\$1.95	\$1.75	\$1.57
319839CH	8P8C triple wall jack plate w/ jacks (white) (CAT 6)	2	11.19	10.65	10.09
319821CH	8P8C quad wall jack plate w/ jacks (white) (CAT 5e)	3	11.75	11.15	10.59
103464CH	6P4C adhesive jack RJ11 (beige)	4	1.39	1.19	1.09
71984CH	6P6C adhesive jack RJ11 (beige)	4	1.39	1.19	.99
71651CH	8P8C adhesive jack RJ45 (beige)	4	1.95	1.65	1.45
213031CH	8P8C adhesive jack RJ45 (single, white) (CAT 5e)	5	3.29	2.99	2.69
213049CH	8P8C adhesive jack RJ45 (dual, white) (CAT 5e)	6	4.15	3.75	3.39

## "EZ" RJ45 Connector

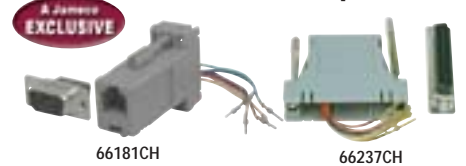
Strip the wire and insert into the plug & pull out the wire on the other side. This ensures correct conductor order and uniformity in crimping. No wire bar and no wasted cable.

- For solid or stranded wire • 8P8C plug
- Use standard modular crimping tool

Part No.	Product No.	1	10	100	250
158115CH	RJ45 (8P8C)	\$1.75	\$1.58	\$1.42	\$1.25

**JAMECO** ValuePro

## RS-232-to-RJ11/RJ45 Modular Jack Adapters



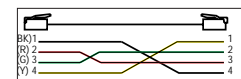
Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

Part No.	Description	1	10	100
204265CH	DB9 M to RJ11(6P4C)	\$1.95	\$1.66	\$1.24
66181CH	DB9 M to RJ11(6P6C)	2.59	2.35	2.09
66190CH	DB9 M to RJ45(8P8C)	2.89	2.65	2.35
114737CH	DB9 F to RJ11(6P4C)	1.95	1.79	1.59
66202CH	DB9 F to RJ11(6P6C)	2.79	2.55	2.29
66211CH	DB9 F to RJ45(8P8C)	2.99	2.69	2.45
204281CH	DB25 M to RJ11(6P4C)	2.39	2.15	1.29
66229CH	DB25 M to RJ11(6P6C)	2.95	2.35	1.99
66237CH	DB25 M to RJ45(8P8C)	2.99	2.69	2.45
204273CH	DB25 F to RJ11(6P4C)	1.95	1.75	1.55
66245CH	DB25 F to RJ11(6P6C)	2.59	1.95	1.39
66253CH	DB25 F to RJ45(8P8C)	2.89	2.59	2.29

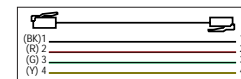
## Modular Telephone/Printer Sharing Cables (Gray)

- RJ11 – 6P2C/6P4C for telephone or network
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use

Style 1 – Reverse wiring for telephone systems



Style 2 – Straight wiring for networking/printer sharing



Part No.	Conn. Style	Type	Length	1	10	100
189940CH	1	RJ11-6P2C	7ft.	\$ .99	\$ .84	\$ .63
196226CH	1	RJ11-6P4C	7ft.	1.49	1.15	.86
115553CH	2	RJ11-6P4C	7ft.	1.25	1.09	.89
115545CH	1	RJ11-6P4C	25ft.	2.29	2.09	1.85
201232CH	2	RJ11-6P4C	35ft.	1.95	1.66	1.24
115588CH	1	RJ11-6P6C	7ft.	1.55	1.35	1.15
115617CH	2	RJ11-6P6C	7ft.	2.19	1.99	1.79
115676CH	2	RJ45-8P8C	7ft.	1.89	1.75	1.49

† Beige

## Surface Mount Boxes

### Category 5 and 5e

- RJ45 • 8P8C
- 100MHz
- Size: 2.6"L x 3.2"W x 1.2"H
- CAT 5e (except P/N 176073CH)

Part No.	Description	1	10	100
176073CH	Single jack (beige)	\$5.75	\$5.23	\$4.75
213022CH	Single jack (white)	\$5.25	4.77	4.34
176081CH	Dual jack (beige)	9.95	8.46	6.34
213014CH	Dual jack (white)	\$7.19	6.53	5.93

Call for OEM pricing

## Nylon Cable Ties

### Standard

- Cable ties made from UL approved Nylon 66
- Temperature range: -40°C to +85°C
- Flammability rating: UL 94V-2
- Color: clear (except P/N 182676CH)
- Sold in increments of 100 or 1000

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
70560CH	18	3.1 x 0.10	.025	.015
126543CH	18	4.0 x 0.10	.02	.014
182676CH	18*	4.75 x 0.13	.03	.025
182650CH	18	5.5 x 0.13	.035	.025
139150CH	18	8.0 x 0.10	.06	.04
182668CH	18	8.0 x 0.13	.075	.05
182684CH	18	8.0 x 0.18	.036	.033
70906CH	40	5.8 x 0.10	.035	.029
190756CH	40	10.0 x 0.14	.12	.086
190772CH	40	11.0 x 0.19	.10	.075
190764CH	40	13.0 x 0.14	.10	.075

\* Black

### Weather Resistant

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use
- Color: black
- Sold in increments of 100 or 1000

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
139125CH	18	3.0 x 0.90	.045	.029
104141CH	18	4.0 x 0.10	.044	.029
104133CH	40	5.8 x 0.10	.047	.031
190781CH	40	8.0 x 0.13	.085	.065
190799CH	40	10.0 x 0.14	.10	.09
190801CH	40	13.0 x 0.14	.113	.088

### Cable Tie Assortments

- Tensile strength: 18-50 lbs.
- 145701CH: 1000 pcs. (4"L); 10 colors
- 150412CH: 500 pcs. (4"L); 300 pcs. (8"L); 50 pcs. (11"L), 5 colors

Part No.	Weight (lbs.)	1	10	50
145701CH	0.7	\$9.49	\$8.49	\$7.39
150412CH	1.7	13.95	11.49	9.95

## Cable Tie Tool

- 2.5 - 5mm width (of cable)
- Tension adjustable
- Twist to cut surplus tie end
- Spring return action
- Metal

Part No.	Mfr. Cross Ref. No.	1	5	10
182297CH	0302TG-7	\$16.99	\$15.99	\$14.99

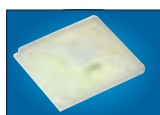
## Bushing Assembly Tool

- For use with strain relief bushings, above

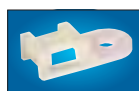
Part No.	Description	1	10	100
73470CH	Bushing tool	\$31.95	\$28.75	\$25.85

## Cable Tie Mounts and Cable Clamps

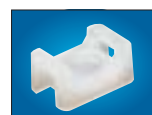
- Tie mount and screw tab cable clamps
- Material: UL approved nylon 66, 94V-2
- Sold in increments of 10, 100 or 1000



182941CH/171213CH  
71407CH/71394CH  
71386CH



70594CH



182300CH/173761CH



182318CH/182376CH



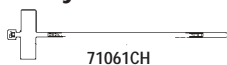
182334CH/182342CH



173711CH/173729CH  
173737CH/134754CH  
173753CH

Part No.	Mfr. Cross Reference No.	Description	10	100	1000
182941CH	0505HC-101S	4-way cable tie mount, self adhesive, .75"D	.07	.055	.042
171213CH	HC-100	4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.5" square	.15	.13	.094
71407CH	HC-101	4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.9" square	.18	.16	.13
71394CH	HC-102	4-way cable tie mount, self adhesive, use w/ 0.2"W max., 1.1" square	.23	.19	.14
71386CH	HC-103	4-way cable tie mount, self adhesive, use w/ 0.4"W max., 1.1" square	.25	.19	.13
70594CH	HC-0	4-way cable tie, screw type, use w/ 0.2"W max., 0.8"L x 0.4"W	.15	.09	.05
182300CH	0510HC-2	Cable tie mount, 1/4" screw hole, 0.5"D	.17	.15	.14
173761CH	HC-1	Cable tie, saddle type, 0.6"L x 0.4"W	.15	.125	.075
182318CH	0519ATC-17	2-way adjustable tie mount, #6 flat head screw, 0.7"D	.26	.24	.225
182376CH	0519ATC-22	2-way adjustable tie mount, #6 flat head screw, 0.9"D	.29	.261	.222
182334CH	0520FC-1	Cable tie mount, self adhesive, 0.1"D	.17	.15	.12
182342CH	0520FC-2	Cable tie mount, self adhesive, 0.2"D	.15	.135	.122
173711CH	UC0	Cable clamp for 1/8" cable	.08	.027	.018
173729CH	UC0.5	Cable clamp for 3/16" cable	.035	.032	.019
173737CH	UC1	Cable clamp for 1/4" cable	.14	.09	.063
134754CH	B0375	Cable clamp for 3/8" cable	.08	.029	.018
173753CH	UC3	Cable clamp for 1/2" cable	.099	.041	.031

## Nylon Cable ID Ties and Tabs



71061CH: Clear ID tab (0.98" x 0.31")



135175CH

135175CH: Nylon cable tie ID marker

- Sold in increments of 10, 100 or 1000

Part No.	Size	10	100	1000
71061CH	4.0"L x 0.1"W	.085	.08	.072
135175CH	2.0"L x 0.8"W x .02"T	.22	.11	.08



## Cable Sleeve

### Clean Cut Expandable Sleeve

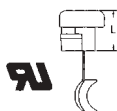
- Flame resistant
- Applications: protecting wires, cables and hoses
- Operating temp.: -70°C to 125°C
- Sold in spools of 25'

Part No.	Product No.	Actual/Expanded Dia.	1	10
162157CH	CCPT2X	.250"/.440"	\$15.95	\$14.95
162165CH	CCPT3X	.500"/.750"	17.95	14.49

## Round-Type Strain Relief Bushings

- Material: UL approved nylon 66, 94V-2
- Color: black
- Used extensively for protecting cords and to prolong cord life
- Sold in increments of 10, 100 or 1000

Part No.	Cable Type	Lgth (in.)	10	100	1000
182351CH	SVI/SVT	.43	.05	.043	.04
182369CH	SJ/SJT; 16 AWG	.58	.18	.10	.085
182377CH	SJC; 18 AWG	.58	.24	.22	.20



## Pressure Sensitive Wire Marker

Easy release vinyl cloth markers feature a strong, pressure-sensitive adhesive, for long lasting bond on a wire or cable. Black non-smear legends on white background for easy identification.

- Convenient pocket-size booklet
- 10 sheets numbered 1 to 45 each sheet

Part No.	Product No.	1	10	100
216813CH	TCWM-3	\$12.95	\$6.99	\$6.39

## Self Adhesive Wire Marker

- 90 markers per number
- Stick to wires for permanent identification
- Cloth tape label numbered 0-9
- Used after or before terminal

Part No.	Product No.	1	10
182262CH	0215WMB-1	\$9.95	\$7.09

## 3M Tape Wire Marker

- For marking wires with numerical sequence
- Self adhesive tapes numbered 0-9
- Size: (tape) 96"L x 0.25"W

Part No.	Description	1	10
159231CH	Numerical tape dispenser	\$30.95	\$27.95

## Cable Markers

- UL approved natural nylon
- 10 piece minimum

Part No.	Size	10	100	1000
182705CH	1.5"L x .75"W	.10	.09	.08
182713CH	2.5"L x 1.76"W	.25	.23	.20

# Cable Clips, Tape and Heat Shrink Tubing

Call for OEM pricing - we carry major manufacturers.

## Cable Clips

These nail-in cable clips are designed for use with RG-6 cables.

- For RG-6 type cables
- Includes 1" nail
- Prepackaged in increments of 100



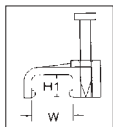
295591CH



295611CH

Part No.	Description	1 Pkg	10 Pkgs
295603CH	Single RG-6 cable clip, white	\$3.39	\$2.79
295591CH	Single RG-6 cable clip, black	3.19	2.65
295611CH	Dual RG-6 cable clip, white	3.65	2.99
295620CH	Dual RG-6 cable clip, black	3.65	2.99

## Nail-In Cable Clips



190828CH



190861CH

- Material: impact resistant PE
- With nails inserted
- Sold in increments of 100 or 1000

**SALE**

For telephone cords; white

Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	100	1000
190828CH	NF1.2	.24 x .21 x .15	\$ .006	\$ .005
190836CH	NF1.6	.31 x .31 x .20	.006	.005

Blue Part No. = Limited Quantity Available

For general round cables; gray

Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	100	1000
190861CH	NCO.35N	.14 x .23 x .15	\$ .022	\$ .02
190887CH	NC1N	.24 x .35 x .26	.05	.02
190895CH	NC2N	.31 x .45 x .34	.015	.014
190908CH	NC3N	.39 x .53 x .41	.016	.015

## 3M Super 33+ Electrical Tape

This tape provides flexibility and easy handling for all around performance. It combines PVC backing with excellent electrical insulating properties to provide primary electrical insulation for splices up to 600V and protective jacketing. Excellent resistance to UV rays, abrasion, moisture, copper corrosion, alkalis and acids, and is flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) and is designed to perform in a continuous temperature environment up to 220°F (105°C).

- UL listed and CSA certified
- 0.75" x 66'

Part No.	Product No.	1	10	25
285464CH	3M 06132	\$4.35	\$4.00	\$3.98

**Order Anytime,  
Day or Night**

Our friendly sales department will take your order 24x7x365 by phone, fax, web or email.

## 3M

## Hook and Loop Fastening System

Nylon hooks mesh with pliable loops. 1" wide strip with adhesive backing sticks instantly to many surfaces.

- Hook and loop: 1" x 15'



Part No.	Product No.	1	5	10
286897CH	3M 06481 (white)	\$31.09	\$29.99	\$28.35
286900CH	3M 06488 (black)	31.55	30.49	28.75

## 3M Dual Lock Fastening System

3M™ Dual Lock™ reclosable fasteners have been used extensively in transportation, electronics, business equipment, machinery, medical, sign and display markets. When the mushroom-shaped stems interlock, tensile strength is high enough to replace mechanical fasteners, yet you can readily open and close Dual Lock fasteners hundreds of times. High temperature and solvent resistant.

- Adhesive backing for strong bonds
- 5x stronger than conventional hook & loop fasteners
- Audible snap assures secure closure



Part No.	Product No.	1	5	10
288438CH	3M 06463 (clear)	\$74.95	\$71.19	\$67.65

## 3M Double-Sided Foam Tape

Used in a wide variety of applications, this tape features high-shear acrylic adhesive and high temperature resistance. Adheres securely to any surface with its double-sided adhesive. 1/8" thick open-cell urethane foam carrier. Ideal for many manufacturing applications.

- 1/8" thick
- 1" x 12'



Part No.	Product No.	1	5	10
285907CH	3M 4008	\$14.89	\$11.35	\$10.55

## 3M Tartan 1710 Electrical Tape

3M™ Tartan™ 1710 vinyl insulating tape offers good resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions (including ultraviolet).

- UL listed
- 0.75" x 60'
- Flame retardant



Part No.	Product No.	1	10	25
285587CH	3M 49656	\$ .95	\$ .89	\$ .86

## 3M Vinyl Electrical Tape

### 5-pack Multi-Colored

3M #35 vinyl electrical color coding tape is used in phase identification, color coding leads, piping systems and for marking safety areas. UL Listed, CSA Certified, and flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) or hot to 220°F (105°C). 5 rolls to a pack with colors blue, green, red, yellow, and white.

- 1/2" x 20'



Part No.	Product No.	1	5	10	25
287806CH	3M 10457	\$7.95	\$6.72	\$6.10	\$5.36

## Heat Shrink Tubing

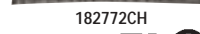
- 2:1 uniform shrink ratio
- Color: black



182748CH

## PVC Heat Shrink Tubing

- Shrink temp: 125°C
- Sold in 10' and 100' increments



182772CH



Part No.	Dia. before (mm)	10 ft.	100 ft.
184721CH	.12" (3)	\$1.19	\$10.50
182730CH	.16" (4)	1.39	12.50
182748CH	.20" (5)	1.45	13.00
182756CH	.24" (6)	1.49	13.50
182764CH	.31" (8)	1.79	16.00
182772CH	.43" (11)	2.80	19.00
182781CH	.59" (15)	3.50	30.00

## PVC Heat Shrink Flat Film

- Shrink temperature: 175°C
- Temperature range: -45°C to +125°C
- Precut 39" length; sold as 1 increment



70631CH

Part No.	Flat	Unshrunk Cir. Dia.	Shrunk Cir. Dia.	1*	10*	100*
70631CH	5/16"	1/4"	1/8"	\$1.69	\$1.55	\$1.39
70623CH	1/2"	5/16"	3/16"	1.69	1.44	1.08
70666CH	13/16"	9/16"	1/4"	1.69	1.45	1.09

## Polyolefin Heat Shrink Tubing

**Quantity SAVE**

- Dielectric strength: 1300V
- Flame retardant
- Flexible
- Shrink temp.: 121°C
- Temperature range: -45°C to +125°C



72063CH

\* Precut 39" length; sold as 1 increment

Part No.	Before	After (Dia.)	1*	10*	100*
71327CH	1/16"	1/32"	\$ .55	\$ .46	\$ .41
71870CH	3/32"	3/64"	.55	.45	.39
71280CH	1/8"	1/16"	.69	.59	.54
72063CH	1/4"	1/8"	.89	.76	.57
226245CH	3/8"	3/16"	1.09	.98	.88
216477CH	1/2"	1/4"	.99	.84	.63

## 3M Heat Shrink Tubing 102-Piece Kit

3M™ FP-301 is a heat shrinkable flexible polyolefin tubing that offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 275°F (135°C) continuous operation. FP-301 tubing is typically used as a shrink-fit electrical insulation over cable splices and terminations. It is also used for lightweight wire harness covering, wire marking, wire bundling, component packaging and fire resistant covering.

- Assorted pre-shrink sizes: 3/16" (30 pieces); 1/4" (28 pieces); 3/8" (20 pieces); 1/2" (14 pieces); 3/4" (6 pieces); 1" (4 pieces)
- Pre-cut to 6" lengths



Part No.	Description	1	5	10	50
285481CH	Heat shrink kit	\$56.95	\$53.70	\$50.99	\$48.45

See page 226 for  
Heat Guns.





## Audio/Video Cables and Adapters

### RCA Cables

Part No.	Description	1	10	25
228443CH	3' stereo RCA (2) male to (2) male plugs, gold plated	\$1.49	\$1.39	\$1.29
183311CH	4' RCA male to male plug (black)	.99	.89	.79
206973CH	4' RCA male to male plug (yellow)	.99	.89	.79
183302CH	4' RCA (2) male to (2) male plugs (red/black)	1.75	1.49	1.09
106374CH	6' RCA male to male plug	1.19	1.00	.75
228419CH	6' mono RCA male plug to female jack	1.65	1.45	1.25
228486CH	6' RCA stereo (2) male plugs to (2) female jacks	1.25	1.15	1.05
228451CH	6' RCA stereo (2) male to (2) male plugs, gold plated	1.79	1.69	1.59
308734CH	6' RCA stereo (2) male to (2) male plugs (red/white)	1.65	1.49	1.35
228401CH	6' RCA stereo (2) male plugs to 3.5mm stereo male plug	1.55	1.39	1.25
236865CH	6' RCA (3) male to (3) male plugs, gold plated	2.39	2.07	1.55
184882CH	6' RCA (3) male to (3) male plugs, low loss	1.95	1.79	1.59
228427CH	10' RCA female jack to male plug	2.35	1.95	1.79
29348CH	10' RCA male to male plug (yellow)	1.69	1.55	1.35
228460CH	12' RCA stereo (2) male to (2) male plugs, gold plated	2.09	1.89	1.75
225980CH	12' RCA (3) male to (3) male plugs, gold plated	4.49	3.89	2.89
225998CH	20' RCA (3) male to (3) male plugs, gold plated	7.99	6.79	5.09
228435CH	25' mono RCA male to male plug, nickel plated	2.19	2.09	1.99
228478CH	25' RCA stereo (2) male to (2) male plugs, gold plated	2.39	2.29	2.19

### 3.5mm Audio Patch Cables

Part No.	Description	1	10	25
319206CH	27" 3.5mm mono male to male plug	\$1.09	\$.94	\$.89
326511CH	1' 3.5mm stereo male to male plug	1.75	1.59	1.39
326529CH	6' 3.5mm stereo male to male plug (green/blue)	1.39	1.19	.99
228494CH	6' 3.5mm stereo male to male plug	1.39	1.19	.99
228515CH	6' 3.5mm stereo male plug to female jack	1.49	1.35	1.25
228507CH	12' 3.5mm stereo male to male plug	1.69	1.49	1.29
228523CH	12' 3.5mm stereo male plug to female jack	1.65	1.49	1.35

## S-VHS Cables and Adapters

Low-loss fully shielded Super-VHS cables, 4-contact mini DIN plus S-VHS cable and dual-RCA plug stereo cables.

- Fully-molded color coded gold RCA connectors
- Flexible black PVC jacket
- Applications: home theaters, DSS receivers, Super-VHS VCRs, camcorders, and DVD players



228558CH/228566CH: 95% spiral wound shield S-VHS/audio conductors

Part No.	Description	1	10	25
228591CH	6' S-VHS video cable, gold plated	\$2.15	\$1.95	\$1.79
228558CH	6' S-VHS audio-video cable, gold plated	12.95	11.65	10.49
228566CH	12' S-VHS audio-video cable, gold plated	14.95	13.45	12.15
228603CH	12' S-VHS video cable, gold plated	2.65	2.35	2.10
228611CH	25' S-VHS video cable, gold plated	4.05	3.85	3.65
229809CH	S-video 4-pin mini DIN female to female jack	2.85	2.59	2.29
229391CH	S-video male plug to RCA video female jack	5.39	4.85	4.39
295881CH	S-video female jack to RCA video male plug	5.39	4.85	4.39
30351CH	S-video male plug to RCA video female jack	5.39	4.85	4.39

Part No.	Product No.	Fig.	Description	1	10	50	100
289828CH (Fig. 1)	289916CH (Fig. 2)	290001CH (Fig. 3)	289924CH (Fig. 4)				
289828CH	200-030	1	RG-59 crimp-on nickel plated	\$2.22	\$2.20	\$1.77	\$1.49
289908CH	200-031	1	RG-59 crimp-on gold plated	.45	.43	.41	.39
289887CH	200-035	2	RG-6 crimp-on nickel plated	.22	.20	.17	.14
289916CH	200-036	2	RG-6 crimp-on gold plated	.45	.43	.41	.39
290001CH	200-039	3	RG-6 twist-on nickel plated	.79	.69	.45	.32
289975CH	200-040	3	RG-59 twist-on nickel plated	.79	.69	.45	.32
289924CH	200-038	4	RG-6 crimp-on weatherproof seal, brass	.69	.59	.49	.39
314510CH	200-024	4	RG-6 crimp-on weatherproof sea	.55	.46	.37	.33



### Video/Audio Patch Cables

Part No.	Description	1	10	25
228216CH	3' stereo video patch cable, gold plated	\$1.19	\$1.13	\$1.07
228574CH	25' stereo video patch cable, gold plated	6.99	6.29	5.65
228582CH	50' stereo video patch cable, gold plated	12.59	11.35	10.19

### VCR Cable

228224CH	6' stereo VCR cable	<del>\$2.39</del>	\$1.89	\$1.70	\$1.54
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Blue Part No. = Limited Quantity Available

## 3.5mm Female Jacks and Male Plugs



- Threaded screw on housing
- 1mm diameter solder eyelets
- Shield crimp tabs

231159CH/231167CH: With spring strain relief

Part No.	Mfr. Cross Ref. No.	Description	1	10	100	1000
109495CH	PJ035PM	Mono F jack, 3.5mm hole size	\$.45	\$.40	\$.36	\$.32
165729CH	PJ0354	Mono F jack, 3.5mm hole size	.69	.59	.49	.39
101151CH	PJ1035	Mono male plug, plastic	.49	.38	.35	.29
147344CH	PJ1035L	Mono male plug, plastic	.49	.38	.35	.29
231159CH	AP-336	Mono male plug, metal	1.25	1.19	1.09	.95
231175CH	AP-340	Stereo male plug, plastic	.55	.43	.36	.32
231167CH	AP-343	Stereo male plug, metal	1.79	1.60	1.45	1.30

## 75Ω "F" Connectors/Adapters/Terminators



Part No.	Product No.	Fig.	Description	1	10	50	100
291581CH	200-016	1	Perma-seal, RG-59 coax	\$.69	\$.59	\$.55	\$.49
291531CH	200-028	1	Perma-seal, RG-6 coax	.69	.59	.55	.49
291709CH	200-050	2	F-jack to jack (nickel)	.65	.55	.475	.38
291725CH	200-051	2	F-jack to jack (gold)	.95	.85	.79	.75
295371CH	200-053	3	F-panel mount jack to jack (nickel)	.65	.55	.475	.38
295380CH	200-107	4	F-R/A jack to plug (nickel)	1.59	1.39	1.16	.95
295398CH	200-103	5	F-jack to push-on plug (nickel)	.85	.69	.627	.523
295435CH	200-104	5	F-jack to push-on plug (gold)	1.15	.99	.95	.89
295531CH	200-117	6	F-jack to 3.5mm mono plug (nickel)	1.65	1.35	1.13	.93
295451CH	200-075	7	F-plug terminator	.55	.45	.35	.25
309657CH	200-045	8	RCA female to F male adapter	1.75	1.35	.97	.87

# Audio/Video, 3.5mm, RCA Cables and Adapters

## Audio Adapters and Cables

### RCA Audio Adapters

**SALE**

Part No.	Description	1	10	25	100
228283CH	RCA female jack to mono 1/4" male plug	\$.99	\$.89	\$.69	\$.55
228312CH	RCA male plug to 1/4" mono female jack	1.25	1.10	.79	.69
228267CH	RCA female to female jack coupler, gold plated	.95	.79	.55	.45
159441CH	RCA female to female jack coupler, metal	1.15	.99	.87	.65
228259CH	RCA male to male plug adapter	<del>\$1.59</del> .65	.59	.54	.49
228339CH	RCA F jack to 3.5mm mono M plug, gold plated	<del>\$1.49</del> .75	.68	.62	.56
228291CH	RCA F jack to 3.5mm mono M plug, nickel plated	<del>\$1.25</del> .59	.54	.49	.45
215458CH	RCA male plug to 3.5mm mono female jack	<del>\$.89</del> .47	.42	.39	.35

### RCA Y-Cables

196808CH	5' Y-cable 1/8" stereo F jack to (2) RCA M plugs	\$.75	\$.30	\$.27	\$.26
139037CH	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs	2.25	1.99	1.79	1.61
228371CH	6' Y-cable (2) RCA M plugs to RCA F jack	.99	.89	.80	.72
228355CH	6' Y-cable RCA M plug to (2) RCA F jacks	1.29	1.15	1.06	.79
228380CH	6' Y-cable (2) RCA F jacks to 3.5mm stereo plug	1.95	1.76	1.59	1.19

### 3.5mm Audio Adapters

228275CH	3.5mm stereo female to female jack	<del>\$.55</del> \$.41	\$.37	\$.34	\$.31
309665CH	3.5mm stereo F jack to 3.5mm mono M plug	.95	.78	.61	.52
228304CH	3.5mm stereo M plug to (2) 1/4" stereo F jacks	<del>\$2.05</del> .93	.84	.77	.70
228339CH	3.5mm mono M plug to RCA F jack, gold plated	<del>\$1.49</del> .75	.68	.62	.56
228291CH	3.5mm mono M plug to RCA F jack, nickel plated	<del>\$1.25</del> .59	.54	.49	.45
215458CH	3.5mm mono female jack to RCA male plug	<del>\$.89</del> .47	.42	.39	.35

### 3.5mm Y-Cables

139037CH	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs	\$2.25	\$1.99	\$1.79	\$1.61
228398CH	6' Y-cable (2) 3.5mm stereo female jacks to 3.5mm stereo male plugs	1.95	1.65	1.35	1.25
228380CH	6' Y-cable (2) RCA F jacks to 3.5mm stereo M plug	1.95	1.76	1.59	1.19



## Digital Audio Optical Cables and Adapters

Connect your DVD, CD, Mini Disc, DAT, game console or other digital audio equipment for clear, full and richly detailed sound. For the ultimate listening experience, connect to your Dolby Digital® or DTS® home theater equipment.

- Low-loss core provides low distortion & high signal-to-noise ratio
- Clad reflecting layer prevents phase error and noise, achieving high-fidelity transmission effect
- Corrosion-resistant, precise collar to ensure long lasting quality

### Cables

**SALE**

Part No.	Description	1	2	5
228654CH	3' TOSLINK-TOSLINK	<del>-\$3.79</del> \$2.95	\$2.66	\$2.42
228689CH	3' TOSLINK-mini plug	<del>-\$9.95</del> 6.05	5.48	4.98
228662CH	6' TOSLINK-TOSLINK	<del>-\$4.75</del> 3.89	3.54	3.22
228697CH	6' TOSLINK-mini plug	<del>-\$16.65</del> 9.79	8.89	8.09
228671CH	12' TOSLINK-TOSLINK	<del>-\$7.29</del> 5.99	5.42	4.93
228700CH	12' TOSLINK-mini plug	<del>-\$23.29</del> 13.79	12.55	11.41

### Adapters

230615CH	TOSLINK - mini plug adapter	<del>-\$2.79</del> \$2.09	\$1.88	\$1.71
230607CH	TOSLINK - TOSLINK coupler	<del>-\$1.89</del> 1.65	1.51	1.37

## RG-6/RG-59 75Ω Patch Cables

Type	Length (ft.)	Part No. (Black)	Part No. (White)	287152CH	287232CH
RG-6	3	286977CH	287232CH	\$1.69	\$1.59
RG-59	3	85585CH	—	1.05	.95
RG-6	6	287101CH	287241CH	2.29	2.15
RG-6	12	287128CH	287259CH	3.69	3.49
RG-6	25	287152CH	287267CH	6.99	6.65
RG-6	50	287179CH	287275CH	13.49	12.75
RG-6	75	287208CH	287291CH	18.99	18.15
RG-6	75	297668CH	—	14.69	13.99
RG-6	100	287224CH	287304CH	24.99	23.75

Color Code Legend
New Sale Lower\$ QtySave

## Component Video and Audio Cables

Component video cables connect the latest video equipment like DVD players equipped with component video output jacks to LCD or plasma televisions, projectors and other component video devices.

- Low-loss 75Ω oxygen-free copper center conductors and foam dielectric provide maximum signal transfer bandwidth for improved picture quality and performance
- Corrosion resistant, precise 24k gold-plated connectors ensure long lasting quality
- Fully molded color coded connectors attached to an ultra-flexible PVC jacket provides excellent strain relief, easy installation, and identification
- 100%, .012mm aluminum-polyester foil shielding and spiral-wound copper-braid shielding provides clear, noise-free, vivid picture quality



Part No.	Description	1	2	5
228620CH	6' component video RGB cable	<del>-\$12.35</del> \$9.99	\$8.49	<b>\$6.37</b>
228638CH	12' component video RGB cable	<del>-\$23.75</del> 19.95	17.95	16.16
228646CH	25' component video RGB cable	<del>-\$33.95</del> 25.95	23.36	21.02
229403CH	6' component video RGB and stereo audio cable	<del>-\$17.29</del> 14.95	13.46	12.11
229411CH	12' component video RGB and stereo audio cable	<del>-\$33.25</del> 25.95	23.36	21.02
229420CH	25' component video RGB and stereo audio cable	<del>-\$47.55</del> 29.95	25.46	<b>19.09</b>

## STEREN Perma Seal RCA/BNC Connectors

Use the color code chart below to replace the "xx" when ordering

02 - Red	04 - Yellow	05 - Green	09 - White	10 - Black	13 - Blue
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e.g. 292102CH - 2921 is the Jameco designation for RCA RG-59 plug and 02 is for color red

Part No.	Description	1	10
2922xxCH	RCA RG-6 plug	\$1.59	\$1.49
2921xxCH	RCA RG-59 plug	1.59	1.49
2924xxCH	BNC RG-6 plug	1.89	1.79
2923xxCH	BNC RG-59 plug	1.89	1.79



## RCA Plugs

- High-quality plastic and metal housing RCA plugs

**Gold plated metal housing w/ spring strain relief for 6.7mm cables**

Part No.	Description	1	10	25	100
229876CH	Black	\$1.89	\$1.69	\$1.55	\$1.39
229868CH	Red	1.89	1.69	1.55	1.39
229884CH	White	1.89	1.69	1.55	1.39
230287CH	Yellow	1.89	1.69	1.55	1.39

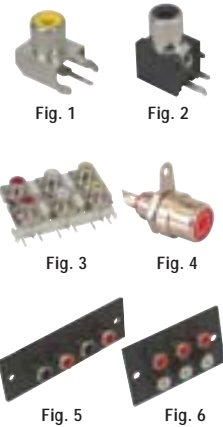
**Plastic screw-on cover w/ integral cable protection**

Part No.	Description	1	10	25	100
229921CH	Black (5 pk)	\$1.15	\$1.05	\$.91	\$.85
229930CH	Red (5 pk)	1.15	1.05	.91	.85
229913CH	White (5 pk)	1.19	1.09	.95	.89
229892CH	Yellow (5 pk)	1.19	1.09	.95	.89

## RCA Jacks

- Standard RCA jacks for audio and video signals

Part No.	Fig.	Description	Dimensions	1	10	100	1000
220581CH	1	PCB mount, white	.44"W x .56"D x .48"H	\$.45	\$.31	\$.28	\$.22
220556CH	1	PCB mount, red	.44"W x .56"D x .48"H	.45	.31	.28	.22
220572CH	1	PCB mount, black	.44"W x .56"D x .48"H	.45	.31	.28	.22
220564CH	1	PCB mount, yellow	.44"W x .56"D x .48"H	.45	.31	.28	.22
112475CH	1	PCB mount, red	.44"W x .58"D x .48"H	.39	.35	.31	.19
169501CH	2	PCB mount, black	.40"W x .85"D x .50"H	.39	.35	.32	.26
237016CH	3	PCB mnt., 2x3 grid, red/wht/yel	2.0"W x .45"D x 1.10"H	.89	.79	.69	.65
159484CH	4	Panel mount, black	.84"W x .38"H	.49	.39	.33	.24
172339CH	4	Panel mount, red	.84"W x .38"H	.49	.39	.31	.23
319231CH	5	Panel mount, 1x2 grid, red/wht	2.1"W x .48"D x .78"H	.79	.69	.65	.62
319249CH	5	Panel mount, 1x4 grid, red/blk	2.9"W x .48"D x .98"H	1.19	.99	.94	.89
319257CH	6	Panel mount, 2x2 grid, red/wht	2.0"W x .48"D x 1.38"H	1.19	.99	.94	.89
319265CH	6	Panel mount, 2x3 grid, red/wht	2.3"W x .48"D x 1.41"H	1.29	1.15	1.09	1.03
319071CH	6	Panel mount, 2x4 grid, red/blk	3.0"W x .49"D x 1.40"H	1.39	1.19	1.13	1.07



See page 121 for Power Jacks and Plugs.

Switchcraft – For Highest Quality Connectors

Switchcraft®

## Audio Plugs and Jacks

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
281885CH	780	1	3.5mm mono audio plug, metal	14.1mm x 41.1mm x 5.3mm ID	\$3.89	\$2.94	\$2.69	\$2.45
281869CH	750	2	3.5mm mono audio plug, plastic	14.0mm x 41.5mm x 5.7mm ID	2.49	2.17	1.99	1.81
281834CH	41	3	3.5mm audio jack	7.8mm x 5.9mm	1.29	1.22	1.07	1.02
297019CH	125	4	3.5mm mono jack, metal	31.75mm x 10.3mm Dia.	5.19	4.54	4.08	4.01
297035CH	142A	5	3.5mm mono jack, plastic	21.03mmL x 9.52mmW x 12.7mmH	2.19	2.04	1.93	1.83
297297CH	850	6	2.5mm mono phono audio plug, plastic	25.8mm x 6.35mm Dia.	2.59	2.28	2.15	2.12
297625CH	TR2A	7	2.5mm mono audio jack, metal	12.6mm	2.09	1.94	1.80	1.73
281789CH	297	8	1/4" stereo phone audio plug, metal	73.7mm x 7.6mm ID	4.59	3.82	3.19	2.91
281771CH	280	9	1/4" mono phone audio plug, metal	73.7mm x 7.6mm ID	3.15	2.82	2.58	2.36
281762CH	267	10	1/4" stereo phone audio plug, plastic	73.7mm x 7.6mm ID	4.25	3.22	2.95	2.69
281754CH	250	11	1/4" mono phone audio plug, plastic	73.7mm x 7.6mm ID	2.55	2.39	2.13	1.94
281746CH	12B	12	1/4" stereo phone audio jack	14.7mm x 9.1mm Dia.	1.49	1.39	1.32	1.24
281738CH	11	13	1/4" mono phone audio jack	12.8mm x 9.1mm Dia.	1.39	1.29	1.19	1.15
296892CH	12A	12	1/4" mono phono audio jack, metal	31.7mm x 9.4mm Dia.	1.79	1.43	1.33	1.26
296905CH	13B	12	1/4" mono phono audio jack, metal	30.6mm x 9.4mm Dia.	4.15	3.76	3.37	3.22
296930CH	42A	12	1/4" mono phono audio jack, metal	15.9mm x 12.7mm Dia.	1.75	1.60	1.52	1.48
296956CH	70	9	1/4" mono phono audio plug, metal	84.8mm x 9.7mm ID	6.79	5.48	4.93	4.44
297001CH	121	14	1/4" mono phono audio jack, metal	63.5mm x 12.7mm Dia.	7.15	5.87	5.22	4.74
297043CH	151	15	1/4" mono phono audio jack, metal	57.15mm x 15.87mm Dia.	5.99	4.65	4.30	4.25
297060CH	170	16	1/4" mono phono audio jack, metal	69.4mm x 17.46mm Dia.	7.89	5.99	5.58	5.32
297107CH	226	17	1/4" mono phono audio jack, RA, metal	46.4mm x 15.9mm Dia.	3.89	3.70	3.23	2.93
296913CH	14B	12	1/4" stereo phono audio jack, metal	31.6mm x 9.4mm Dia.	4.19	3.81	3.42	3.30
297051CH	152B	15	1/4" stereo phono audio jack, metal	57.15mm x 15.87mm Dia.	5.75	5.11	5.02	4.89
297158CH	290	18	1/4" stereo phono audio jack, metal	42.9mm x 12.7mm Dia.	6.19	4.78	4.38	4.16
297123CH	236	17	1/4" stereo phono audio jack, RA, metal	46.4mm x 15.9mm Dia.	4.89	4.83	4.43	4.11
297140CH	238	19	1/4" stereo phono audio jack, RA, metal	41.28mm x 19.84mm Dia.	5.55	4.19	3.90	3.85
296972CH	111	20	1/4" mono phono audio jack, plastic	34.8mm x 15.87mm Dia.	1.45	1.31	1.25	1.21
297537CH	N111	20	1/4" mono phono audio jack, plastic	34.8mm x 15.87mm Dia.	1.69	1.54	1.47	1.43
302543CH	240	11	1/4" mono phono audio jack, black	78.3mm x 7.5mm ID	2.99	2.72	2.59	2.55
297115CH	228	21	1/4" mono phono audio jack, RA, metal	42.1mm x 25.4mm Dia.	4.25	3.25	3.02	2.98
296981CH	112B	20	1/4" phono audio jack, 3C, plastic	34.8mm x 15.87mm Dia.	1.45	1.31	1.25	1.21
297027CH	131	14	1/4" phono audio jack, 3C, plastic	63.5mm x 12.7mm Dia.	10.49	7.82	6.88	6.43
297271CH	515	22	1/4" jack cover	27.2mm x 21.9mm	7.15	5.48	5.08	5.02



Switchcraft®

## DIN Connectors

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
296948CH	61HA5F	1	5-pin DIN receptacle, panel mount	20mm x 17mm Dia.	\$3.29	\$2.65	\$2.43	\$2.35
296876CH	05BL5M	2	5-pin DIN plug, metal	59.2mm x 13.6mm Dia.	4.29	3.94	3.51	3.34
296884CH	05GM5M	3	5-pin DIN plug, gray plastic	63.3mm x 13.6mm Dia.	4.55	3.72	3.28	3.12

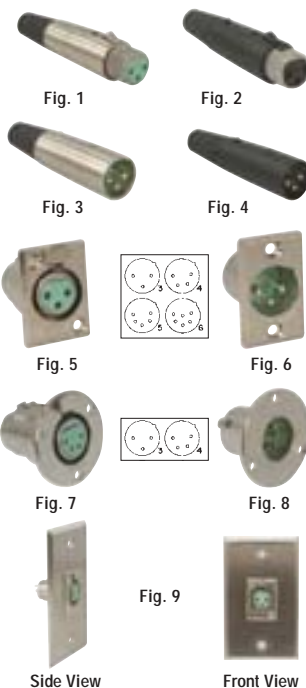


Switchcraft is a leading supplier and manufacturer of electronic and electromechanical components for the audio, video, telecommunication, computer, medical, military, appliance, transportation and instrumentation industries. Their components include jacks, connectors, jack panels, plugs, jackfields, patch cords, power plugs, switches, EAC power receptacles and molded cable assemblies.

## Switchcraft®

### Microphone (XLR) Connectors

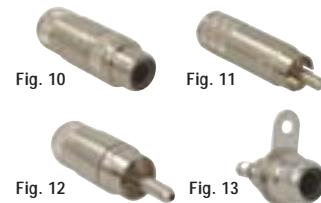
Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
277026CH	A3F	1	3-pin female, metal	82.5mm x 5.3mm Dia.	\$4.49	\$3.99	\$3.58	\$3.26
277034CH	A3FB	2	3-pin female, black	82.0mm x 5.3mm Dia.	5.19	3.99	3.65	3.33
281560CH	A3M	3	3-pin male, metal	70.3mm x 5.3mm Dia.	3.79	3.17	2.83	2.58
281578CH	A3MB	4	3-pin male, black	70.3mm x 6.1mm Dia.	4.59	3.53	3.24	2.95
297422CH	C3F	7	3-pin female, metal, panel mount	36.9mm x 36.5mm Dia.	7.85	7.04	6.22	5.63
297431CH	C3M	8	3-pin male, metal, panel mount	30.2mm x 36.3mm Dia.	5.65	4.28	3.97	3.92
281640CH	D3F	5	3-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	5.89	4.50	4.13	3.75
281658CH	D3M	6	3-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	4.35	3.33	3.06	2.78
281720CH	J3FS	9	3-pin female, wall plate	69.9mmW x 114.3mmH	23.19	20.88	18.79	16.82
281586CH	A4F	1	4-pin female, metal	82.0mm x 5.5mm Dia.	7.25	5.56	5.09	4.64
281594CH	A4M	3	4-pin male, metal	71.2mm x 4.8mm Dia.	4.59	4.08	3.68	3.32
297449CH	C4F	7	4-pin female, metal, panel mount	36.9mm x 36.5mm Dia.	12.15	9.11	8.35	7.97
297457CH	C4M	8	4-pin male, metal, panel mount	30.2mm x 36.3mm Dia.	7.19	5.48	5.02	4.82
281666CH	D4F	5	4-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	8.35	6.38	5.85	5.32
281674CH	D4M	6	4-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	5.19	3.96	3.63	3.31
281607CH	A5F	1	5-pin female, metal	82.0mm x 4.7mm Dia.	12.09	9.06	8.31	7.55
281615CH	A5M	3	5-pin male, metal	70.2mm x 5.3mm Dia.	9.35	7.18	6.58	5.92
281682CH	D5F	5	5-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	13.39	10.32	9.46	8.55
281691CH	D5M	6	5-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	9.25	7.01	6.43	5.84
281623CH	A6F	1	6-pin female, metal	80.2mm x 4.6mm Dia.	10.79	10.25	9.45	8.32
281631CH	A6M	3	6-pin male, metal	70.5mm x 4.5mm Dia.	9.55	8.78	8.15	7.51
281703CH	D6F	5	6-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	18.95	14.19	13.02	11.83
281711CH	D6M	6	6-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	12.35	11.80	9.49	8.30



## Switchcraft®

### RCA Plugs and Jacks

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
281826CH	3503	10	RCA phono audio jack, metal	43.2mm x 7.6mm ID	\$2.59	\$1.97	\$1.81	\$1.64
281818CH	3502A	11	RCA phono audio plug, nickel	42.4mm x 7.3mm ID	1.85	1.66	1.54	1.40
281800CH	3502	12	RCA mono phono audio plug, metal	33.8mmL x 5.0mm ID	1.75	1.37	1.21	1.10
281797CH	3501FP	13	RCA phono audio jack, metal	16.3mm x 6.0mm Dia.	1.29	1.00	.91	.84



## Switchcraft®

### Power Plugs and Jacks

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
281842CH	712A	14	2.1mm DC power jack, panel mount	15.8mm x 7.5mm Dia.	\$2.05	\$1.88	\$1.76	\$1.65
281851CH	722A	14	2.5mm DC power jack, panel mount	15.1mm x 7.5mm Dia.	2.09	1.94	1.75	1.65
297588CH	RAPC722	16	2.0mm x 5.5mm DC pwr. jack, RA	10.9mmH x 8.8mmW x 14.3mmD	.85	.77	.71	.68
297561CH	PC722A	15	2.0mm x 5.5mm DC power jack, metal	23.3mm x 11.0mm Dia.	2.35	2.09	1.93	1.91
297570CH	RAPC712	16	2.5mm x 5.5mm DC pwr. jack, RA	10.9mmH x 8.8mmW x 14.3mmD	.86	.77	.71	.68
297553CH	PC712A	15	2.5mm x 5.5mm DC power jack, metal	23.3mm x 11.0mm Dia.	2.09	1.99	1.95	1.90
297529CH	L712A	17	2.5mm x 5.5mm DC power jack, metal	23.3mm x 11.0mm Dia.	3.75	2.85	2.64	2.61
281877CH	760	18	2.5mm x 5.5mm DC power plug, plastic	9.6mm x 36.3mm x 5.7mm Dia.	2.15	1.94	1.76	1.59
297617CH	S760	18	2.1mm x 5.5mm DC power plug, plastic	25.4mm x 9.5mm Dia.	1.99	1.94	1.80	1.67
297289CH	761K	19	2.5mm x 5.5mm DC power plug, plastic	25.4mm x 9.5mm Dia.	3.99	3.03	2.81	2.79



### Microphone (XLR) Connectors

**NEW**

**EXCLUSIVE**

319011CH 319003CH 319046CH 319038CH

Part No.	Product No.	Description	1	10
319011CH	250-710	3-pin male microphone, metal	\$2.35	\$2.17
319003CH	250-720	3-pin female microphone, metal	2.29	2.20
319046CH	250-700	3-pin male microphone, metal, panel mount	3.25	2.79
319038CH	250-705	4-pin female microphone, metal, panel mount	4.15	3.39

### Professional Microphone (XLR) Cables and Adapters

**NEW**

305251CH 305200CH 305285CH 305277CH 305293CH/307694CH

Part No.	Product No.	Description	1	10
305251CH	251-310	3-pin female to female gender changer	\$7.49	\$6.99
305200CH	251-320	3-pin male to male gender changer	7.49	6.99
305285CH	251-330	1/4" jack to 3-pin female XLR adapter	8.95	7.95
305277CH	251-340	1/4" jack to 3-pin male XLR adapter	7.95	7.15
305293CH	255-290	1/4" jack to 3-pin XLR female cable, 20'	10.39	9.85
307694CH	255-293	1/4" jack to 3-pin XLR female cable, 60'	20.95	19.85

# D-Sub Connectors and Contacts

AMP – Biggest Name in Quality Connectors

Color Code Legend  
New Sale Lower\$ QtySave

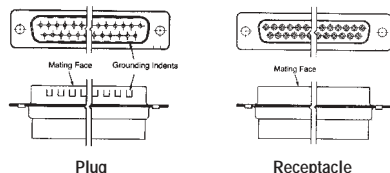
## AMP

## D-Subminiature Connectors

- Dielectric withstanding voltage: 1000VAC (one minute)
- Nylon, flame retardant, 94V-0 rated, glass filled
- Low-cost, high-performance, precision formed crimp contacts
- Standard mounting method with 0.120" diameter mounting holes
- Insulation resistance: 5000MΩ
- UL/CSA recognized and certified

### Crimp-Type Contacts

- Current rating: 1.2A to 3.7A
- Intermateable with any size 20 D-sub dimensionally complying with MIL-C-24308
- Crimp snap-in contacts allows loading of only the number of contacts being used



### Zinc-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222640CH	205204-1	9	Plug .....	\$ .95	\$ .86	\$ .64
222658CH	205206-1	15	Plug .....	1.39	1.24	.92
222666CH	205208-1	25	Plug .....	1.05	.92	.82
222674CH	205210-1	37	Plug .....	1.69	1.49	1.10
222682CH	205212-1	50	Plug .....	2.09	1.79	1.35
222691CH	205203-1	9	Receptacle	1.10	.99	.77
222703CH	205205-1	15	Receptacle	1.25	1.10	.82
222711CH	205207-1	25	Receptacle	1.05	.95	.71
222720CH	205209-1	37	Receptacle	1.69	1.49	1.10
222738CH	205211-1	50	Receptacle	2.09	1.79	1.69

### Tin-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222754CH	205204-3	9	Plug .....	\$1.29	\$1.15	\$ .85
222762CH	205206-2	15	Plug .....	1.49	1.29	.95
222771CH	207464-1	25	Plug .....	.94	.80	.61
222789CH	205210-2	37	Plug .....	1.69	1.49	1.10
222797CH	205204-4	9	Plug* .....	.83	.75	.55
222800CH	205206-3	15	Plug* .....	.99	.89	.65
222818CH	207464-2	25	Plug* .....	.88	.78	.58
222826CH	205210-3	37	Plug* .....	1.69	1.49	1.12
222834CH	205212-3	50	Plug* .....	1.79	1.59	1.19
222842CH	205203-3	9	Receptacle	.69	.59	.52
222914CH	205205-2	15	Receptacle	.88	.78	.58
222922CH	207463-1	25	Receptacle	.99	.89	.68
222931CH	205209-2	37	Receptacle	1.19	1.05	.78
222949CH	205211-2	50	Receptacle	2.09	1.79	1.35

\* With grounding indents

## D-Sub Pin Insertion/Extraction Tools

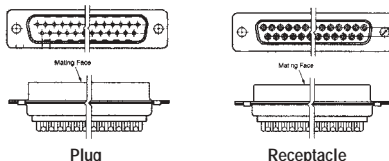
19094CH/223335CH: Plastic body; metal tips  
223327CH: Handle with .050" hex wrench & exchangeable tips



Part No.	Description	1	10	100
19094CH	Red/white plastic body	\$2.79	\$2.49	\$2.15
223335CH	AMP# 91067-2 .....	4.45	3.95	3.75
223327CH	AMP# 91285-1 .....	19.99	18.99	17.99

### Solder-Cup Contacts

- Current rating: 1.2A to 3.0A
- Intermateable with other D-sub connectors
- One-piece 94V-0 rated plastic insert
- Preloaded duplex-plated solder-cup contacts
- Shields offer full EMI shielding and ESD insulation
- Anti-solderwicking contact design



### Zinc-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222957CH	747904-4	9	Plug .....	\$1.89	\$1.59	\$1.32
222965CH	747908-4	15	Plug .....	2.65	2.19	1.75
222973CH	747912-4	25	Plug .....	3.69	3.10	2.49
222981CH	747916-4	37	Plug .....	5.45	4.56	3.79
223036CH	747905-4	9	Receptacle	2.65	2.23	1.76
223044CH	747913-4	25	Receptacle	4.75	3.99	3.19

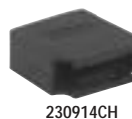
### Tin-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222990CH	747904-2	9	Plug .....	\$1.69	\$1.55	\$1.15
223001CH	747908-2	15	Plug .....	2.79	2.49	1.85
223010CH	747912-2	25	Plug .....	3.29	2.95	2.19
223028CH	747916-2	37	Plug .....	5.29	4.29	3.49
223052CH	747905-2	9	Receptacle	2.35	2.09	1.55
223061CH	747909-2	15	Receptacle	3.45	2.99	2.19
223079CH	747913-2	25	Receptacle	4.09	3.69	2.72
223087CH	747917-2	37	Receptacle	6.65	5.69	4.19

## AMP Plastic Hoods for D-Sub Connectors

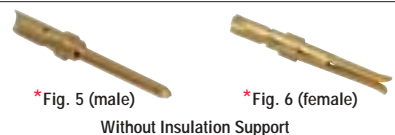
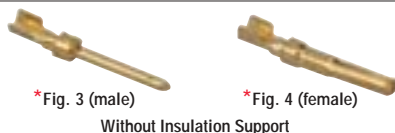
- Cable clamp type: clam shell
- Cable exit angle: straight
- Standard clam shell length
- Body material, cable support gate, and cable clamp: thermoplastic
- Screw material: steel
- Screw plating: zinc



Part No.	Product No.	Positions	1	10	100
230893CH	205729-1	9 .....	\$2.25	\$1.85	\$1.46
230906CH	205730-1	15 .....	2.35	2.10	1.85
230914CH	205718-1	25 .....	2.05	1.69	1.32
230922CH	205731-1	37 .....	2.99	2.63	2.29
230931CH	205732-1	50 .....	3.19	2.65	2.19

## AMP D-Sub Contacts

- Pin material: brass; socket material: phosphor bronze
- Contact plating
- \*A: Select – gold flash over nickel on entire contact, with additional gold (.000030) on mating end;
- \*B: Duplex – gold (.000030) on mating end, tin-lead on termination end, with entire contact nickel underplated;
- \*C: gold flash over nickel on entire contact;
- \*D: gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated
- For use with AMP D-sub connectors (see left)
- Prepackaged: order in increments of 10, 100 or 1000



### Male Crimp Contacts

Part No.	Product No.	Desc.*	AWG	10	100	1000
223095CH	1-66507-0	1C	28-24 ...	\$2.24	\$1.17	\$1.12
223124CH	66682-4	1A	28-24 .....	.22	.16	.14
223108CH	66507-9	1A	28-24 .....	.18	.12	.09
223132CH	745254-7	1C	26-22 .....	.25	.18	.128
223141CH	745254-6	1A	26-22 .....	.25	.18	.13
223159CH	1-745254-6	1B	26-22 .....	.25	.18	.13
223167CH	1-66506-0	1C	24-20 .....	.16	.15	.12
223175CH	205202-7	3C	24-20 .....	.24	.17	.14
223183CH	5-66506-9	1D	24-20 .....	.21	.15	.13
223191CH	66506-9	1A	24-20 .....	.16	.15	.10
223204CH	5-66506-7	1B	24-20 .....	.24	.17	.12
223212CH	745229-4	3A	22-18 .....	.26	.24	.19

### Female Crimp Contacts

Quantity SAVE

Part No.	Product No.	Desc.*	AWG	10	100	1000
223221CH	1-66505-0	2C	28-24 ...	\$1.18	\$1.12	\$0.99
223239CH	66683-4	2A	28-24 .....	.19	.17	.15
223247CH	745253-6	2A	26-22 .....	.27	.20	.14
223255CH	1-66504-0	2C	24-20 .....	.17	.15	.11
223263CH	205201-7	4C	24-20 .....	.26	.214	.16
223271CH	5-66504-7	2D	24-20 .....	.16	.12	.10
223280CH	205201-5	4A	24-20 .....	.18	.147	.11
223298CH	66504-9	2A	24-20 .....	.17	.15	.13
223301CH	6-66504-0	2B	24-20 .....	.26	.214	.16

### Male Solder Contact

Part No.	Product No.	Desc.*	AWG	10	100	1000
234982CH	66570-3	5A	28-24 ...	\$1.22	\$1.12	\$1.11

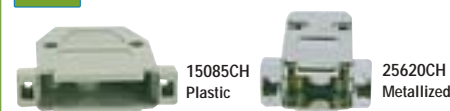
### Female Solder Contact

Part No.	Product No.	Desc.*	AWG	10	100	1000
223319CH	66569-3	6A	18 (max.)	\$1.225	\$1.18	\$1.162

www.Jameco.com

Our enhanced website offers more products.  
Find it quickly and order it easily!

## D-Sub Connector Hoods



- Use with D-sub solder cup and housing style connectors (hardware included)

**D Series:** plastic hood with strain relief (gray)  
**MD Series:** metal coated plastic hood w/ strain relief  
**MH Series:** die-cast metal hood with strain relief

Part No.	Mfr. Cross Ref. No.	Connector	1	10	100	1000
15721CH	DB9H	9-pin ..... 15085CH Plastic	\$.49	\$.45	\$.39	\$.35
25620CH	MDB9H	9-pin ..... 25620CH Metallized	.59	.49	.39	.35
147740CH	MHDB9	9-pin ..... 147740CH Metallized	1.45	1.29	1.15	.99
15018CH	DA15H	15-pin ..... 15018CH Plastic	.49	.45	.40	.35
25566CH	MDA15H	15-pin ..... 25566CH Metallized	.56	.44	.36	.31
15085CH	DB25H	25-pin ..... 15085CH Plastic	.45	.39	.35	.32
25603CH	MDB25H	25-pin ..... 25603CH Metallized	.59	.49	.42	.35
15106CH	MHDB25	25-pin ..... 15106CH Metallized	1.39	1.19	1.09	.89
15456CH	DC37H	37-pin ..... 15456CH Plastic	.59	.55	.45	.39
25611CH	MDC37H	37-pin ..... 25611CH Metallized	.75	.69	.59	.53
15659CH	DD50H	50-pin ..... 15659CH Plastic	.99	.85	.75	.65

## 25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.



Part No.	Description	1	10	100	500
34091CH	25-pin, plastic dual ..	\$.95	\$.85	\$.75	\$.59

## 4-40 Screw Hardware for D-Subminiature Connectors

4-40 x .187" Jack Screws and Standoffs



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
196293CH	.252"L jack screw .....	* \$2.1	\$.12	\$.08	
169931CH	.275"L jack screw .....	* .15	.13	.11	
172603CH	.315"L jack screw .....	* .14	.11	.084	
102816CH	.435"L jack screw .....	.49	.46	.41	.37
108986CH	.515"L jack screw .....	.55	.50	.45	.40
125014CH	4-40 x 1.65" plastic beige thumbscrew .....	.39	.35	.32	.25
175636CH	.187"L standoff .....	* .21	.15	.10	
102795CH	.236"L (6mm) standoff .....	* .21	.15	.10	

## 4-40 Screw Sets



**102808CH:** 4-40 screw (.30"L) and retainer set  
**16547CH:** 4-40 x .187" jack screw (.31"L thread), washer, lock washer, and nut set

\* Prepackaged: order in increments of 10, 100 or 1000

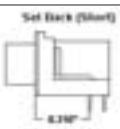
Part No.	Description	10	100	1000
102808CH	Screw/retainer set .....	\$.39	\$.35	\$.30
16547CH	Screw/nut set .....	.31	.25	.17

## D-Subminiature Connectors

- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)
- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT

### Right Angle PC Mount

.318" Set Back



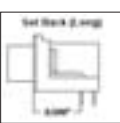
- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: metal
- Current rating: 1A



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100	500
104942CH	DB9P318	9	M	\$.55	\$.50	\$.45	\$.38
104951CH	DB9S318	9	F	..60	.55	.49	.45
71124CH	DA15P318	15	M	..69	.59	.55	.49
77956CH	DA15S318	15	F	..79	.69	.65	.45
168743CH	HDDB15S318*	15	M	..49	.42	.34	.31
71466CH	HDDB15S318*	15	F	..59	.53	.48	.39
15149CH	DB25P318	25	M	..79	.65	.55	.45
15181CH	DB25S318	25	F	..89	.79	.72	.65
265439CH	DSUB-25F	25	F	..85	.73	.62	.48
71706CH	DC37P318	37	M	..99	.89	.80	.66
78182CH	DC37S318	37	F	1.15	.95	.69	.49

\* High Density

### .590" Set Back



- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A
- Shell: metal
- Long style



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
104969CH	DB9P590	9	M	\$.99	\$.83	\$.72
104977CH	DB9S590	9	F	..89	.79	.75
104993CH	DA15S590	15	F	..99	.85	.59
105005CH	DB25P590	25	M	..99	.89	.79
105013CH	DB25S590	25	F	1.25	1.12	.99

### Other Manufacturers — Limited Great Deals

189624CH	DB25P590†	25	M	\$.49	\$.29	\$.26	\$.24
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† Without board tabs

### IDC Ribbon Cable Connectors

- Current rating: 1 amp
- Insulation material: glass-filled polyester
- Temp range: -55°C to +120°C
- Contact material: phosphor bronze
- Terminates with standard D-type connectors
- Shell: MD: metal; CD: plastic (see mfr. cross ref. no.)



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
109225CH	MDB9P†	9	M	\$1.35	\$1.25	\$1.09
12503CH	CDB9P	9	M	2.49	1.79	1.59
109217CH	MDB9S†	9	F	1.49	1.19	1.05
12520CH	CDB9S	9	F	2.59	2.35	2.09
117381CH	MDA15P	15	M	1.55	1.25	.69
12298CH	CDA15P	15	M	1.55	1.25	.75
116011CH	MDA15S	15	F	1.55	1.25	.85
12319CH	CDA15S	15	F	1.69	1.35	.79
115983CH	MDB25P	25	M	1.85	1.69	1.45
12335CH	CDB25P	25	M	1.89	1.69	1.29
115975CH	MDB25S	25	F	1.85	1.65	1.39
12431CH	CDB25S	25	F	1.95	1.79	1.39
115991CH	MDC37P	37	M	2.39	2.15	1.55
12466CH	CDC37P	37	M	3.09	2.79	2.49
116003CH	MDC37S	37	F	2.95	2.69	2.42
12482CH	CDC37S	37	F	3.49	2.99	2.25

† Require flat cable w/ .0625" centers

### Crimp-Type Connectors & Pins

- Connectors: metal shell; removable male/female crimp pins
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: exchangeable tips
- Use 99442CH, pg 229 to crimp 43377CH, 43369CH
- \* Prepackaged: order in increments of 10, 100 or 1000



Part No.	Description	1	10	100	1000
73189CH	DB9 M housing .....	\$.49	\$.39	\$.31	\$.19
73197CH	DB9 F housing .....	.49	.39	.31	.19
73200CH	DA15 M housing .....	.59	.53	.48	.43
73218CH	DA15 F housing .....	.62	.56	.50	.44
180881CH	HDDB15 M housing*	1.09	.98	.78	.58
180890CH	HDDB15 F housing*	.89	.79	.72	.65
38789CH	DB25 M housing .....	.56	.44	.36	.21
38771CH	DB25 F housing .....	.55	.44	.31	.21
43377CH	M crimp pin .....	*	.10	.09	.08
43369CH	F crimp pin .....	*	.08	.07	.06
185421CH	M crimp pin (180881CH) ..	*	.055	.045	.04
185412CH	F crimp pin (180890CH) ..	*	.055	.05	.04
19094CH	Insert./extract. tool for above pins (HT101) .....	2.79	2.49	2.15	2.04

\* High Density

### Solder-Cup Connectors

- Compatible with 24 AWG communications and 22 AWG solid cable, pg 88
- Shell: metal



Part No.	Contacts	Gender	1	10	100	1000
15747CH	9	M	\$.56	\$.44	\$.36	\$.24
15771CH	9	F	..59	.49	.44	.31
15077CH	15HD*	M	..69	.59	.49	.31
164822CH	15HD*	F	..79	.69	.59	.39
15034CH	15	M	..55	.49	.42	.29
15051CH	15	F	..59	.49	.39	.24
15114CH	25	M	..99	.89	.79	.71
15157CH	25	F	..89	.80	.69	.61
203799CH	26HD*	M	..65	.58	.52	.49
203781CH	26HD*	F	..75	.68	.61	.58
15472CH	37	M	..99	.85	.79	.49
15499CH	37	F	1.19	1.05	.85	.49
15675CH	50	M	1.65	1.49	1.35	.99
15691CH	50	F	1.79	1.39	1.32	1.19

\* High Density

### Other Manufacturers — Limited Great Deals

15156CH	25	F	\$.79	\$.72	\$.62	\$.55
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### Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temperature: -65°F to +250°F
- Shell: metal



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
111691CH	DB9PPCB	9	M	\$.55	\$.45	\$.32
15780CH	DB9SPCB	9	F	..55	.45	.32
176760CH	DA15PPCB	15	M	..49	.44	.39
176751CH	DA15SPCB	15	F	..49	.42	.31
15122CH	DB25PPCB	25	M	..65	.59	.52
15165CH	DB25SPCB	25	F	..74	.67	.39
180021CH	DC37SPCB	37	F	..85	.72	.54



## .062" (1.57mm) Power Connectors

- Passive friction lock
- Polarized housing assures proper mating
- Voltage: 250V • Current: 5.0A
- Dielectric withstanding voltage: 1500VAC<sub>RMS</sub>
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40°C to +105°C

### Plugs



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224477CH	03-06-2011*	1	\$.29	\$.16	\$.13
224485CH	03-06-2023*	2	.30	.18	.15
224493CH	03-06-2032*	3	.31	.19	.16
224506CH	03-06-2042*	4	.39	.27	.24
224514CH	03-06-2044**	4	.39	.27	.24
230244CH	03-06-2055*	5	.47	.26	.24
224522CH	03-06-2061**	6	.45	.28	.25
224531CH	03-06-2092**	9	.49	.27	.24
224549CH	03-06-2122**	12	.52	.30	.25

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
229948CH	03-06-2024*	2	\$.30	\$.17	\$.14
229964CH	03-06-2033*	3	.35	.18	.15
229981CH	03-06-2041*	4	.47	.27	.24
230009CH	03-06-2043**	4	.47	.26	.24
230025CH	03-06-2054*	5	.47	.26	.24
230041CH	03-06-2062**	6	.47	.26	.24
230068CH	03-06-2091**	9	.47	.26	.24
230084CH	03-06-2121**	12	.55	.29	.26

\*In-line \*\*Grid

### Receptacles



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224397CH	03-06-1011*	1	\$.29	\$.16	\$.13
224400CH	03-06-1023*	2	.30	.18	.15
224418CH	03-06-1032*	3	.31	.19	.16
224426CH	03-06-1042*	4	.39	.27	.24
224434CH	03-06-1044**	4	.39	.27	.24
230252CH	03-06-1056*	5	.55	.35	.31
224442CH	03-06-1062**	6	.45	.28	.25
224451CH	03-06-1092**	9	.49	.27	.24
224469CH	03-06-1122**	12	.52	.30	.25

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
229956CH	03-06-1022*	2	\$.31	\$.16	\$.14
229972CH	03-06-1038*	3	.32	.17	.15
229999CH	03-06-1041*	4	.49	.26	.23
230017CH	03-06-1043**	4	.49	.26	.23
230033CH	03-06-1055*	5	.59	.49	.36
230050CH	03-06-1061**	6	.47	.26	.23
230076CH	03-06-1091**	9	.47	.26	.23
230092CH	03-06-1121**	12	.49	.33	.30

\*In-line \*\*Grid

## .093" (2.36mm) Power Connectors

- Passive friction lock
- Voltage: 250V
- Current: 12A per circuit
- Dielectric withstanding voltage: 1500VAC<sub>RMS</sub>
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40°C to +105°C

### Plugs



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224063CH	03-09-2011*	1	\$.29	\$.18	\$.12
224071CH	03-09-2022*	2	.30	.25	.18
224080CH	03-09-2032*	3	.41	.32	.21
224098CH	03-09-2042*	4	.45	.22	.20
229825CH	03-09-2049**	4	.45	.34	.26
230261CH	03-09-2057*	5	.55	.29	.26
224101CH	03-09-2062**	6	.49	.39	.29
224119CH	03-09-2092**	9	.55	.35	.30
224127CH	03-09-2121**	12	.69	.59	.39

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
230105CH	03-09-2021*	2	\$.35	\$.18	\$.16
230121CH	03-09-2031*	3	.42	.22	.20
230148CH	03-09-2041*	4	.42	.22	.20
230164CH	03-09-2040**	4	.64	.59	.35
230181CH	03-09-2061**	6	.35	.33	.25
230201CH	03-09-2091**	9	.65	.35	.31
230228CH	03-09-2122**	12	.71	.38	.35

\*In-line \*\*Grid

### Receptacles



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224135CH	03-09-1011*	1	\$.29	\$.09	\$.08
224143CH	03-09-1022*	2	.30	.25	.18
224151CH	03-09-1032*	3	.44	.25	.16
224160CH	03-09-1042*	4	.46	.25	.22
229817CH	03-09-1049**	4	.46	.33	.25
230279CH	03-09-1057*	5	.59	.49	.32
224178CH	03-09-1064**	6	.49	.23	.20
224186CH	03-09-1094**	9	.69	.59	.39
224194CH	03-09-1126**	12	.75	.49	.39

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
230113CH	03-09-1027*	2	\$.35	\$.17	\$.15
230130CH	03-09-1081*	3	.48	.24	.22
230156CH	03-09-1041*	4	.40	.23	.17
230172CH	03-09-1040**	4	.48	.25	.23
230199CH	03-09-1061**	6	.49	.26	.25
230210CH	03-09-1091**	9	.62	.33	.30
230236CH	03-09-1125**	12	.62	.33	.30

\*In-line \*\*Grid



## .062" (1.57mm) Contacts

- Durability: tin - 25 mating/un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40°C to +105°C
- Prepackaged: order in increments of 10, 100 or 1000

### Crimp-Type Contacts



Part No.	Product No.	Gender	AWG	10	100	1000
224565CH	02-06-2103	M	18-24 ...	\$.18	\$.057	\$.038
224581CH	02-06-2132	M	24-30 .....	.18	.057	.038
224557CH	02-06-1103	F	18-24 .....	.18	.057	.038
224573CH	02-06-1132	F	24-30 .....	.18	.057	.038

### Solder-Tail Contacts



Part No.	Product No.	Gender	10	100	1000
227379CH	02-06-8103	Male	\$.18	\$.11	\$.066
227387CH	02-06-7103	Female	.18	.11	.066



## .093" (2.36mm) Contacts

- Durability: tin - 25 mating/un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40°C to +105°C
- Prepackaged: order in increments of 10, 100 or 1000

### Crimp-Type Contacts



Part No.	Product No.	Gender	AWG	10	100	1000
224207CH	02-09-2118	M	18-22 ....	\$.19	\$.06	\$.04
224223CH	02-09-2103	M	14-20 .....	.18	.059	.04
224215CH	02-09-1119	F	18-22 .....	.20	.07	.04
224231CH	02-09-1104	F	14-20 .....	.18	.059	.04

### Solder-Tail Contacts



Part No.	Product No.	Gender	10	100	1000
224240CH	02-09-2133	Male	\$.149	\$.129	\$.091
224258CH	02-09-1134	Female	.20	.14	.09

## Hand Crimp Tools

This tool is designed to crimp terminals, strip and cut wires, and cut bolts. For Molex crimp pin terminals with .062", .093" diameters and KK® series on opposite page.



308030CH: Cuts & strips 14-24 AWG wires  
227491CH: Cuts & strips 18-30 AWG wires

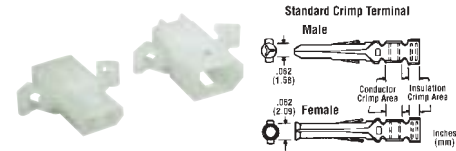
Part No.	Product No.	Length	Color	1	5
308030CH	W-HT-1919	8.3"L	Red	\$.14.99	\$13.99
227491CH	W-HT-1921	8.3"L	Yellow	14.99	13.99

## .062" Power Connector Kit

This assortment kit contains mating sets of housings and pins.

- Voltage: 250VAC • Current: 5A
- Temperature range: -40°C to +105°C

**Includes:** 3 ea. 2-pin plugs and 2-pin receptacles, 8 ea. male contacts and 8 ea. female contacts.



Part No.	Product No.	Description	1	10	50
142113CH	1625-2	Kit .....	\$5.69	\$5.15	\$4.59

## .093" Power Connector Kits

These assortment kits contain mating sets of housings and pins.

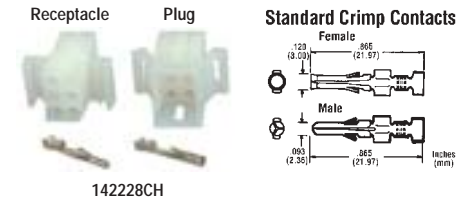
- Voltage: 250VAC
- Temperature range: -40°C to +105°C

**142181CH:** • 3 ea. 2-pin plugs & receptacles, 8 ea. female & male contacts • Current: 12A

**142201CH:** • 2 ea. 4-pin plugs & receptacles, 10 ea. female & male contacts • Current: 9A

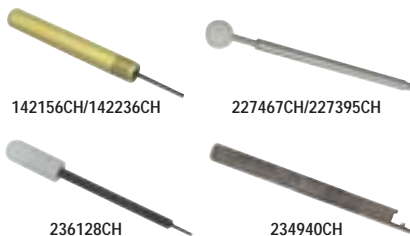
**142228CH:** • 2 ea. 6-pin plugs & receptacles, 14 ea. female & male contacts • Current: 9A

**Includes:** Male and female tin-plated standard brass .010" pins; 18-22 AWG crimp size wire



Part No.	Product No.	Description	1	10	50
142181CH	1545	2-pin kit	\$4.95	\$4.49	\$3.95
142201CH	1490	4-pin kit ...	5.69	5.15	4.65
142228CH	1261	6-pin kit ...	5.25	4.75	3.95

## Extraction Tools for Molex Connectors



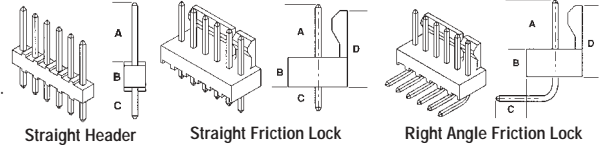
**142156CH/227467CH:** For .062" power connectors  
**142236CH/227395CH:** For .093" power connectors  
**236128CH/234940CH:** For .100" KK® series housing

Part No.	Product No.	AWG	1	10
142156CH	W-HT-2285	18-30 .....	\$14.49	\$13.49
227467CH	W-HT-2023	18-30 .....	11.99	10.99
142236CH	W-HT-2038	14-30 .....	14.49	13.49
227395CH	W-HT-2054	14-30 .....	11.99	10.99
236128CH	W-HT-1884	22-30 .....	9.99	8.99
234940CH	11-03-0022	22-30 .....	14.99	12.99

Color Code Legend
New Sale Lower\$ QtySave

## KK® Series .100" (2.54mm) Male Headers

- Voltage: 250V • Current: 4.0A
- Contact resistance: 20mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 50,000MΩ min.
- Housing: nylon, UL94V-0
- Contact: brass, 0 – 6.4mm (0.25") square
- Durability: tin – 25 cycles max.; gold – 100 cycles max.



### Straight Headers (Tin)

- Dimensions: (A) .295"; (B) .130"; (C) .135"

\*Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
232178CH	22-03-2021	2 .....	* .10	* .09	
232186CH	22-03-2031	3 .....	* .16	* .14	
232194CH	22-03-2041	4 .....	* .21	* .19	
232207CH	22-03-2051	5 .....	.29	.26	.24
232215CH	22-03-2061	6 .....	.34	.31	.27
232223CH	22-03-2081	8 .....	.40	.37	.33
232231CH	22-03-2101	10 .....	.46	.42	.37
232240CH	22-03-2121	12 .....	.56	.51	.45

### Straight Friction Lock Headers (Tin)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

Part No.	Product No.	Positions	1	10	100
232266CH	22-23-2021	2 .....	.29	.23	.15
232274CH	22-23-2031	3 .....	.35	.30	.19
232282CH	22-23-2041	4 .....	.42	.36	.23
232291CH	22-23-2051	5 .....	.49	.42	.27
232303CH	22-23-2061	6 .....	.55	.48	.31
232311CH	22-23-2071	7 .....	.63	.55	.36
232320CH	22-23-2081	8 .....	.72	.63	.41
232338CH	22-23-2091	9 .....	.76	.66	.36
232346CH	22-23-2101	10 .....	.80	.70	.46
232354CH	22-23-2121	12 .....	.95	.83	.55

## Save Big! Special Values!

New Lower Prices = Orange  
 Sale Priced Items = Yellow  
 Exceptional Quantity Discounts = Green

## KK® Series .100" (2.54mm) Female Housing and Crimp Contacts

- Voltage: 250V
- Current: phosphor bronze – 4.0A max., brass – 2.5A max.
- Contact resistance: 20mΩ max.
- Dielectric withstanding volt.: 1500VAC
- Insulation resistance: 50,000MΩ

### Housing Material:

- Contact insertion force: 1.5 lbs. max.
- Contact retention to housing: 8 lbs. min.
- Housing: nylon, UL94V-0
- Operating temperature: 0 to 75°C

### Housing with Locking Ramp & Polarizing Ribs

Part No.	Product No.	Positions	1	10	100
234798CH	22-01-3027	2 .....	.29	.17	.10
234801CH	22-01-3037	3 .....	.29	.21	.13
234819CH	22-01-3047	4 .....	.31	.27	.17
234827CH	22-01-3057	5 .....	.36	.31	.20
234835CH	22-01-3067	6 .....	.42	.36	.23
234843CH	22-01-3077	7 .....	.47	.41	.26
234851CH	22-01-3087	8 .....	.54	.47	.30
234860CH	22-01-3097	9 .....	.58	.50	.32
234878CH	22-01-3107	10 .....	.65	.55	.35
234886CH	22-01-3127	12 .....	.76	.66	.42

### Right Angle Friction Lock Headers (Tin)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233437CH	22-05-3021	2 .....	.42	.36	.22
233445CH	22-05-3031	3 .....	.56	.49	.30
233453CH	22-05-3041	4 .....	.71	.61	.39
233461CH	22-05-3051	5 .....	.77	.67	.43
233470CH	22-05-3061	6 .....	.85	.74	.48
233488CH	22-05-3071	7 .....	.99	.79	.56
233496CH	22-05-3081	8 .....	1.03	.83	.58
233509CH	22-05-3101	10 .....	1.08	.94	.61
233517CH	22-05-3121	12 .....	1.19	.99	.69

### Straight Friction Lock Headers (Gold)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233584CH	22-11-2022	2 .....	.54	.46	.29
233592CH	22-11-2032	3 .....	.85	.74	.47
233605CH	22-11-2042	4 .....	.87	.76	.49
233613CH	22-11-2052	5 .....	1.22	1.06	.69
233621CH	22-11-2062	6 .....	1.34	1.17	.76
233630CH	22-11-2072	7 .....	1.55	1.36	.89
233648CH	22-11-2082	8 .....	1.65	1.42	.93
233656CH	22-11-2102	10 .....	2.05	1.77	1.16
233664CH	22-11-2122	12 .....	2.39	2.12	1.39

### Right Angle Friction Lock Headers (Gold)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233672CH	22-12-2024	2 .....	.89	.77	.48
233681CH	22-12-2034	3 .....	1.15	.99	.63
233699CH	22-12-2044	4 .....	1.36	1.19	.76
233701CH	22-12-2054	5 .....	1.49	1.31	.84
233710CH	22-12-2064	6 .....	1.65	1.43	.92
233728CH	22-12-2084	8 .....	1.85	1.51	1.05

### Housing with Locking Ramp

Part No.	Product No.	Positions	1	10	100
234704CH	22-01-2027	2 .....	.29	.15	.09
234712CH	22-01-2037	3 .....	.29	.20	.12
234721CH	22-01-2047	4 .....	.29	.24	.15
234739CH	22-01-2057	5 .....	.33	.28	.17
234747CH	22-01-2067	6 .....	.36	.32	.20
234755CH	22-01-2087	8 .....	.47	.41	.26
234763CH	22-01-2097	9 .....	.51	.44	.28
234771CH	22-01-2107	10 .....	.57	.49	.31
234780CH	22-01-2127	12 .....	.67	.58	.37

### Crimp Contacts

- Accommodates 22 to 30 AWG
- Material: brass or phosphor bronze
- Insulation range: 0.062" (1.58mm) diameter max.
- Prepackaged: order in increments of 10, 100 or 1000

**234923CH:** Brass with tin plating

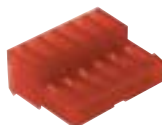
**234931CH:** Brass with 15µ select gold plating

Part No.	Product No.	10	100	1000
234923CH	08-50-0114	\$0.65	\$0.48	\$0.29
234931CH	08-55-0102	.22	.17	.11



## .100" (2.54mm) IDC Connectors

- Voltage rating: 250VAC
- Current rating: 4A max.
- Dielectric withstanding voltage: 750VAC/1 min.
- Low-level resistance: 5mΩ max. initial
- Insulation resistance: 5000MΩ min. initial



345640CH  
Closed-End Style  
w/o Polarizing Tab



345981CH  
Closed-End Style  
w/ Polarizing Tab



346431CH  
Feed-Thru Style  
w/o Polarizing Tab



346790CH  
Feed-Thru Style  
w/ Polarizing Tab



### Closed-End Style

#### Without Polarizing Tabs

\* Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Pos.	AWG	Color	1	10	100
345631CH	640440-5	5	22	Red	\$.20	\$.122	\$.121
345640CH	640440-6	6	22	Red	.21	.131	.13
345658CH	640440-7	7	22	Red	.25	.152	.151
345666CH	640440-8	8	22	Red	.28	.174	.166
345674CH	640440-9	9	22	Red	.53	.371	.232
345682CH	1-640440-0	10	22	Red	.35	.218	.184
345720CH	640441-5	5	24	White	...	.123	.121
345738CH	640441-6	6	24	White	...	.131	.13
345746CH	640441-7	7	24	White	.25	.152	.142
345754CH	640441-8	8	24	White	.20	.174	.158
345762CH	640441-9	9	24	White	.72	.622	.545
345771CH	1-640441-0	10	24	White	.26	.218	.217

#### With Polarizing Tabs

Part No.	Product No.	Pos.	AWG	Color	1	10	100
345965CH	643813-2	2	22	Red	...	\$.057	\$.056
345973CH	643813-3	3	22	Red	...	\$.07	\$.069
345981CH	643813-4	4	22	Red	...	\$.123	\$.104
345990CH	643813-5	5	22	Red	.20	.157	.142
346001CH	643813-6	6	22	Red	.21	.174	.128
346010CH	643813-7	7	22	Red	.25	.196	.178
346028CH	643813-8	8	22	Red	.25	.19	.168
346036CH	643813-9	9	22	Red	.72	.57	.54
346044CH	1-643813-0	10	22	Red	.34	.253	.24
346087CH	643814-5	5	24	White	.20	.157	.142
346095CH	643814-6	6	24	White	.21	.168	.153
346108CH	643814-7	7	24	White	.25	.196	.179
346116CH	643814-8	8	24	White	.28	.223	.203
346132CH	1-643814-0	10	24	White	.35	.28	.254

### Feed-Thru Style

#### Without Polarizing Tabs

\* Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Pos.	AWG	Color	1	10	100
346327CH	640620-2	2	22	Red	...	\$.082	\$.081
346335CH	640620-3	3	22	Red	...	\$.089	\$.088
346343CH	640620-4	4	22	Red	...	\$.096	\$.095
346351CH	640620-5	5	22	Red	...	\$.122	\$.104
346360CH	640620-6	6	22	Red	...	\$.131	\$.13
346378CH	640620-7	7	22	Red	.20	.152	.144
346386CH	640620-8	8	22	Red	.20	.174	.152
346394CH	640620-9	9	22	Red	.57	.56	.55
346407CH	1-640620-0	10	22	Red	.29	.218	.20
346415CH	640621-2	2	24	White	...	\$.078	\$.077
346423CH	640621-3	3	24	White	...	\$.087	\$.083
346431CH	640621-4	4	24	White	...	\$.096	\$.092
346440CH	640621-5	5	24	White	...	\$.102	\$.098
346458CH	640621-6	6	24	White	...	\$.131	\$.128
346466CH	640621-7	7	24	White	.20	.152	.148
346474CH	640621-8	8	24	White	.23	.174	.168
346482CH	640621-9	9	24	White	1.09	1.05	.99
346491CH	1-640621-0	10	24	White	.29	.218	.217

#### With Polarizing Tabs

Part No.	Product No.	Pos.	AWG	Color	1	10	100
346685CH	644540-2	2	22	Red	...	\$.104	\$.095
346693CH	644540-3	3	22	Red	...	\$.116	\$.106
346706CH	644540-4	4	22	Red	...	\$.123	\$.112
346714CH	644540-5	5	22	Red	.20	.157	.142
346722CH	644540-6	6	22	Red	.21	.168	.153
346731CH	644540-7	7	22	Red	.25	.243	.178
346749CH	644540-8	8	22	Red	.28	.276	.203
346765CH	1-644540-0	10	22	Red	.35	.347	.255
346773CH	644563-2	2	24	White	...	\$.101	\$.092
346781CH	644563-3	3	24	White	...	\$.11	\$.10
346790CH	644563-4	4	24	White	...	\$.123	\$.112
346802CH	644563-5	5	24	White	.20	.195	.142
346811CH	644563-6	6	24	White	.21	.168	.153
346829CH	644563-7	7	24	White	.25	.196	.178
346837CH	644563-8	8	24	White	.28	.223	.203
346853CH	1-644563-0	10	24	White	.35	.28	.255



## Belden Hook-up Wire

- Tinned copper
- PVC insulated
- Rated 105°C, 300V; 600V peak for electronic circuits and electrical equipment
- Increments of 100' reels

2344xxCH: 24 AWG (7 x 32); 2344xxCH: 22 AWG (7 x 30)  
Color Code Chart (Replace the "xx" when ordering)

01 - Brown	02 - Red	03 - Orange	04 - Yellow
05 - Green	07 - Violet	08 - Gray	09 - White
10 - Black	13 - Dark blue		

Part No.	Product No.	1	5	10
2344xxCH	9923-100-xx	\$12.89	\$11.72	\$10.61
2343xxCH	9921-100-xx	14.79	13.51	12.26



## .100" (2.54mm) IDC Headers

- Housing: UL94V-0 rated, polyester, natural color



### Narrow Flat Headers



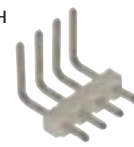
347266CH



347371CH



347442CH



347531CH

- Posts: copper alloy, tin plated
- Base dimensions: 0.092"W x 0.1"H

\* Prepackaged: order in increments of 10 or 100

#### Straight Post - Tin Plated

Part No.	Product No.	Fig.	Pos.	1	10	100
347240CH	644456-2	1	2	...	\$.136	\$.099
347258CH	644456-3	1	3	...	.20	.168
347266CH	644456-4	1	4	...	.22	.163
347274CH	644456-5	1	5	...	.28	.204
347282CH	644456-6	1	6	...	.30	.223
347291CH	644456-7	1	7	...	.30	.192
347303CH	644456-8	1	8	...	.41	.328
347311CH	644456-9	1	9	...	.45	.334
347320CH	1-644456-0	1	10	...	.51	.371

#### Straight Post w/ Retentive Leg - Tin Plated

Part No.	Product No.	Fig.	Pos.	1	10	100
347338CH	644695-2	1	2	...	\$.112	\$.109
347346CH	644695-3	1	3	...	.12	.117
347354CH	644695-4	1	4	...	\$.183	\$.179
347362CH	644695-5	1	5	...	.23	.192
347371CH	644695-6	1	6	...	.25	.248
347389CH	644695-7	1	7	...	.29	.286
347397CH	644695-8	1	8	...	.33	.328
347400CH	644695-9	1	9	...	.37	.367
347418CH	1-644695-0	1	10	...	.41	.408

#### Right Angle Post - Tin Plated

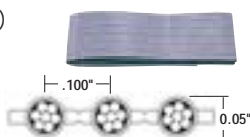
Part No.	Product No.	Fig.	Pos.	1	10	100
347426CH	644457-2	2	2	...	\$.116	\$.085
347434CH	644457-3	2	3	...	\$.151	\$.111
347442CH	644457-4	2	4	...	.23	.229
347451CH	644457-5	2	5	...	.20	.176
347469CH	644457-6	2	6	...	.31	.232
347477CH	644457-7	2	7	...	.99	.748
347485CH	644457-8	2	8	...	.42	.40
347493CH	644457-9	2	9	...	.48	.348
347506CH	1-644457-0	2	10	...	.53	.386

#### Right Angle Post w/ Retentive Leg - Tin Plated

Part No.	Product No.	Fig.	Pos.	1	10	100
347514CH	644694-2	2	2	...	\$.102	\$.081
347522CH	644694-3	2	3	...	.125	.122
347531CH	644694-4	2	4	...	\$.172	\$.171
347549CH	644694-5	2	5	...	.24	.234
347557CH	644694-6	2	6	...	.26	.259
347565CH	644694-7	2	7	...	.30	.299
347573CH	644694-8	2	8	...	.34	.339
347581CH	644694-9	2	9	...	.39	.388
347590CH	1-644694-0	2	10	...	.43	.425

## .100" (2.54mm) Flat Ribbon Cable

- .100" centers (2.54mm)
- 10-conductor
- 24 AWG stranded
- Insulation material: 7mm polyvinyl chloride (PVC) gray
- Rated temperature: 105°C
- Rated voltage: 300V
- Dielectric strength: 2kV in 1 min.
- Insulation resistance: 100MΩ
- Capacitance: 31pF/m • Inductance: 1.45μH/m



Part No.	Product No.	Length (Ft.)	1	10	25
363813CH	H24G-10-10	10	...	\$8.99	\$8.49
363821CH	H24G-10-25	25	...	19.99	18.99
363856CH	H24G-10-100	100	...	69.95	64.99
363864CH	H24G-10-250	250	...	199.99	174.99

† 250 ft. full reel

Found a product at a lower print advertised price? We'll beat that price by 10% right down to our cost!



## .100" (2.54mm) IDC Headers (Cont'd)

- Housing: UL94V-0 rated, polyester, natural color

### Friction Lock Headers

- Posts: copper alloy, gold over nickel plated



### Straight Post – Gold Plated

Part No.	Product No.	Fig.	Pos.	1	10	100
348058CH	641215-2	1	2	.....	\$ .37	\$ .304
348066CH	641215-3	1	3	.....	.42	.387
348074CH	641215-4	1	4	.....	.52	.474
348082CH	641215-5	1	5	.....	.91	.74
348091CH	641215-6	1	6	.....	.74	.672
348103CH	641215-7	1	7	.....	.82	.743
348111CH	641215-8	1	8	.....	.50	.495
348120CH	641215-9	1	9	.....	1.34	1.088
348138CH	1-641215-0	1	10	.....	1.05	.956

### Right Angle Post – Gold Plated

348234CH	641216-2	2	2	.....	\$ .56	\$ .559
348242CH	641216-3	2	3	.....	.78	.779
348251CH	641216-4	2	4	.....	.95	.948
348269CH	641216-5	2	5	.....	.82	.743
348277CH	641216-6	2	6	.....	1.25	1.241
348285CH	641216-7	2	7	.....	1.29	1.28
348293CH	641216-8	2	8	.....	.65	.62
348306CH	641216-9	2	9	.....	1.45	1.43
348314CH	1-641216-0	2	10	.....	1.15	1.043

## Extraction Tools for Crimp Pins

- Quickly and easily extract .093" locking pins from interlocking connectors
- Length: 5"
- See right for crimp pins, 42729CH & 42649CH



131887CH: Male tool for 42729CH  
131879CH: Female tool for 42649CH

Part No.	Product No.	1	10
131887CH	HT319C	\$10.95	\$9.86
131879CH	HT319B	10.95	9.86

## Crimping Tools for Crimp Pins – See page 229.



## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us!

## .118"-Pitch ATX Power Connectors for Motherboards & Power Supplies

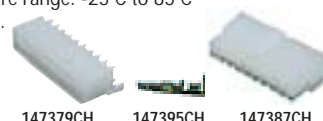
- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min. • Withstanding volt.: 1500V/min.

147379CH: ATX male 20-pin edge mount connector

- Material: nylon 66, UL-94V0

147387CH: Housing connector • Material: nylon 66, UL-94V0

147395CH: ATX power terminal pins • Material: tin-plated brass



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
147379CH	20-pin male connector	1.7"	0.4"	0.6"	—	—	\$ .59	\$ .53	\$ .48	\$ .43
147387CH	20-pin housing connector	1.7"	0.4"	0.8"	—	147395CH	.59	.53	.48	.43
147395CH	Power terminal pin, female	.59"	—	—	.068"	147387CH	*	.12	.11	.10

## .098"-Pitch AT Power Connectors for Motherboards & Power Supplies

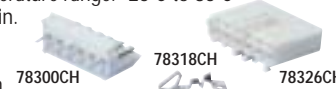
- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min. • Withstanding volt.: 1500V/min.

78300CH: AMP60G male 6-pin PCB mount connector

- Material of post: tin-plated brass • Diameter of post: .09"

78326CH: AMP50G female 6-pin housing connector • Material: nylon

78318CH: AMP501T terminal pin • Material: tin-plated brass



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
78300CH	6-pin male connector	.93"	.37"	.57"	—	—	\$ .45	\$ .39	\$ .35	\$ .31
78326CH	6-pin housing connector	.94"	.25"	.74"	—	78300CH	.35	.31	.28	.25
78318CH	Power terminal pin, female	.69"	—	—	.09"	78326CH	*	.11	.08	.07

## Power Connectors & Pins

### Connector & Housing Specifications:

- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

### Crimp Pin Specifications:

- Material: tin plated brass • Current rating: 1.5 amps
- Wire size range: 18-24 AWG
- Use crimp tool P/N 99442CH, pg 229
- Prepackaged: order in increments of 10, 100 or 1000

### For 5.25" Disk Drives and Power Supplies

#### 42075CH & 42067CH Connector Housings:

- .200" pitch
- Keyed mating connectors
- External key bar indicates pin 1



- See left for extraction tools, 131887CH & 131879CH

Part No.	Description	10	100	1000
109145CH	4-pin M vert. PCB mtg	.....	\$ .65	\$ .59
117567CH	4-pin M PCB mounting, horizontal edge mount	.....	.78	.69
42075CH	4-pin M housing	.....	.12	.11
42067CH	4-pin F housing	.....	.20	.15
42729CH	M crimp pin for 42075CH	.....	.10	.07
42649CH	F crimp pin for 42067CH	.....	.10	.07

### For 3.5" Disk Drives and Power Supplies

- .100" pitch



Part No.	Description	10	100	1000
114930CH	4-pin F housing	.....	\$ .19	\$ .17
114921CH	F crimp pin for 114930CH	.....	.11	.095
Part No.	Description	1	100	1000
114999CH	4-pin M rt. angle PCB mtg	.....	\$ .35	\$ .31

## .156" Center Housing Connectors & Crimp Contact

- Mating connectors for Mean Well LPS and LPP series power supplies (pgs 154-155)
- Current rating: 10A AC/DC
- Voltage rating: 250V AC/DC

227416CH:

- Material: brass
- Finish: tin-plated
- 18-22 AWG



Part No.	Description	1	10	100	1000
215950CH	5 pos. housing	.....	\$ .35	\$ .32	\$ .28
215976CH	8 pos. housing	.....	.39	.35	.32
215968CH	12 pos. housing	.....	.49	.44	.39
227416CH	Crimp contact	.....	.32	.29	.26

## .156" (3.9mm) Center Straight-Friction Lock Headers

- Ideal for AC and DC power distribution
- Voltage rating: 250VAC/VDC max.
- Current rating: 7 amps AC/DC
- Contact resistance: 20mΩ
- Temperature range: -25°C to +85°C
- Header material: pin - brass/tin-plated
- Base: nylon 66, UL94V-2



\* Prepackaged: order in increments of 10, 100, 1000

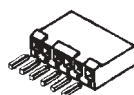
Part No.	Cross Ref. No.	Pins	1	10	100	1000
104791CH	LMH4	4	.....	* \$ .11	\$ .09	\$ .07
104803CH	LMH5	5	.....	* .13	.11	.09
104811CH	LMH6	6	.....	* .15	.12	.10
104846CH	LMH10	10	.....	.22	.20	.16

### Other Manufacturers — Limited Great Deals

235491CH	8673-12-5	12 ...	\$ .35	\$ .32	\$ .25	\$ .23
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## .156" (3.9mm) Center Housing Connectors

- Common to many power supplies carried by Jameco. Some power supplies (pgs 150-153) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318CH, below



A Jameco EXCLUSIVE

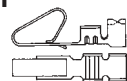
104731CH

\* Prepackaged: order in increments of 10, 100, 1000

Part No.	Cross Ref. No.	Pins	1	10	100	1000
176743CH	LCH2	2	.....	.....	.....	.....
104432CH	LCH3	3	.....	.....	.....	.....
104715CH	LCH4	4	.....	.....	.....	.....
104723CH	LCH5	5	.....	.....	.....	.....
104731CH	LCH6	6	.....	.....	.....	.....
104766CH	LCH10	10	.....	.....	.....	.....

## .156" (3.9mm) Center Crimp Pin

- Pin wire gauge: 18-24 AWG
- Material: brass/tin plated
- Use with .156 housings (above)



Prepackaged: order in increments of 10, 100, 1000

Part No.	Mfr. Cross Ref. No.	10	100	1000
78318CH	JS-5001-T	.....	.....	.....

## .156" Female Crimp Pins

- Pin wire gauge: 18-22 AWG
- Material: tin-plated brass
- Use 99442CH crimping tool, pg 229

**SALE**

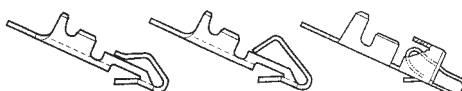
A Jameco EXCLUSIVE

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	10	100	1000
154093CH	LRPIN	.....	.....	.....

## AMP .156" Crimp Contacts

- Voltage rating: 250VAC
- Current rating: 10A maximum
- Low level resistance: 30mΩ max.
- Dielectric withstanding voltage: 2000VAC/1 min.
- Insulation resistance: 1000MΩ minimum
- Compatible with .045" square or round posts
- Material and finish:
  - \*A: brass, 0.012 bright tin plated
  - \*B: brass, 0.012 pre-tin plated
  - \*C: brass, 0.000030 gold over nickel plated
  - \*D: phosphor bronze, 0.012 bright tin plated
  - \*E: phosphor bronze, 0.000030 gold over nickel plated
- For use with .156" AMP housings (right)
- Prepackaged: order in increments of 10, 100 or 500



\* Fig. 1  
(High-Force)

\* Fig. 2  
(Low-Force)

\* Fig. 3  
(Hooded - Dual Wipe)

Part No.	Product No.	Desc.*	AWG	10	100	500
248866CH	640706-1	1A	18-24	.....	.....	.....
248874CH	640706-2	1B	18-24	.....	.....	.....
248882CH	640707-1	2A	18-24	.....	.....	.....
248891CH	770258-1	2C	18-24	.....	.....	.....
248903CH	770522-1	3D	18-24	.....	.....	.....
248911CH	770258-2	3E	18-24	.....	.....	.....

## AMP .156" (3.96mm) Male Headers

- Voltage and current rating: 600VAC @ 7.0A
- Contact material/plating: copper alloy/tin
- UL94V-0 flammability rating
- .045" square posts
- Insulator material: polyester
- Solder tail material/plating: copper alloy/tin



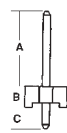
231491CH



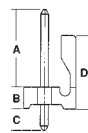
231571CH



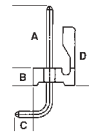
232418CH



Straight Header



Straight Friction Lock



Right Angle Friction Lock

### Straight Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"

Part No.	Product No.	Positions	1	10	100
231458CH	640383-2	2	.....	.....	.....
231466CH	640383-3	3	.....	.....	.....
231474CH	640383-4	4	.....	.....	.....
231482CH	640383-5	5	.....	.....	.....
231491CH	640383-6	6	.....	.....	.....
231503CH	640383-7	7	.....	.....	.....
231511CH	640383-8	8	.....	.....	.....
231520CH	640383-9	9	.....	.....	.....
231538CH	1-640383-0	10	.....	.....	.....

## AMP .156" (3.96mm) Female Housing

- Voltage and current rating: 250VAC @ 6.5A maximum
- Material: nylon, unreinforced 94V-0
- Dielectric withstanding voltage: 2kVAC
- Insulation resistance: 1,000MΩ minimum
- Hole diameter: .054" (1.37mm)



236259CH

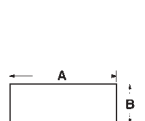


236161CH

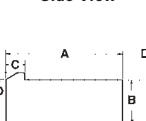


236347CH

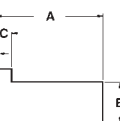
Side View



Without Locking Ramp



With Locking Ramp



With Locking Ramp & Polarizing Tabs

### Without Locking Ramp

- Dimensions: (A) .660"; (B) .250"

\* Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
236232CH	640251-2	2	.....	.....	.....
236241CH	640251-3	3	.....	.....	.....
236259CH	640251-4	4	.....	.....	.....
236267CH	640251-5	5	.....	.....	.....
236275CH	640251-6	6	.....	.....	.....
236283CH	640251-7	7	.....	.....	.....
236291CH	640251-8	8	.....	.....	.....
236304CH	640251-9	9	.....	.....	.....
236312CH	1-640251-0	10	.....	.....	.....

### Straight Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

\* Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
231546CH	640445-2	2	.....	.....	.....
231554CH	640445-3	3	.....	.....	.....
231562CH	640445-4	4	.....	.....	.....
231571CH	640445-5	5	.....	.....	.....
231589CH	640445-6	6	.....	.....	.....
231597CH	640445-7	7	.....	.....	.....
231600CH	640445-8	8	.....	.....	.....
231626CH	1-640445-0	10	.....	.....	.....

### Right Angle Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

Part No.	Product No.	Positions	1	10	100
232362CH	640389-2	2	.....	.....	.....
232371CH	640389-3	3	.....	.....	.....
232389CH	640389-4	4	.....	.....	.....
232397CH	640389-5	5	.....	.....	.....
232400CH	640389-6	6	.....	.....	.....
232418CH	640389-7	7	.....	.....	.....
232426CH	640389-8	8	.....	.....	.....
232434CH	640389-9	9	.....	.....	.....
232442CH	1-640389-0	10	.....	.....	.....

### With Locking Ramp

- Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .0365"

\* Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
236144CH	640250-2	2	.....	.....	.....
236152CH	640250-3	3	.....	.....	.....
236161CH	640250-4	4	.....	.....	.....
236179CH	640250-5	5	.....	.....	.....
236187CH	640250-6	6	.....	.....	.....
236195CH	640250-7	7	.....	.....	.....
236208CH	640250-8	8	.....	.....	.....
236216CH	640250-9	9	.....	.....	.....
236224CH	1-640250-0	10	.....	.....	.....

### With Locking Ramp and Polarizing Tabs

- Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .019" ±.003"

\* Prepackaged: order in increments of 10 or 100

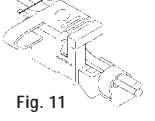
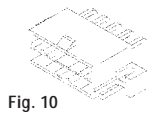
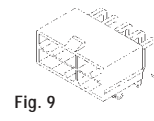
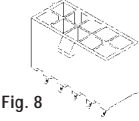
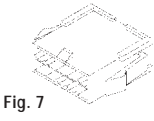
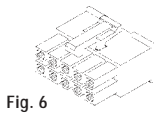
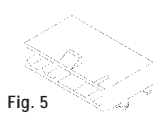
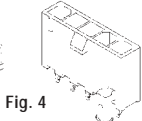
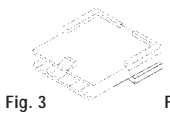
Part No.	Product No.	Positions	1	10	100
236321CH	770849-2	2	.....	.....	.....
236339CH	770849-3	3	.....	.....	.....
236347CH	770849-4	4	.....	.....	.....
236355CH	770849-5	5	.....	.....	.....
236363CH	770849-6	6	.....	.....	.....
236371CH	770849-7	7	.....	.....	.....
236380CH	770849-8	8	.....	.....	.....
236398CH	770849-9	9	.....	.....	.....
236401CH	1-770849-0	10	.....	.....	.....



## .165" (4.20mm) Mini-Fit Jr. Connectors

- Use with strain relief or overmold applications
- UL/CSA/TUV approved
- Uses standard Mini-Fit series terminals

- Positive housing lock for secure mating retention
- Fully isolated terminals to protect contacts from damage
- Housing: 6/6 nylon, UL 94V-2 rated



## Single Row Receptacles and Plugs

## Receptacles

Part No.	Product No.	Fig.	Positions	1	10	100
303765CH	39-01-4030	1	3 ....	\$.43	\$.319	\$.203
303773CH	39-01-4040	1	4 .....40	.318	.268	
303781CH	39-01-4050	1	5 .....39	.315	.265	

## Panel Mount Plugs w/ Mounting Ears

303790CH	39-01-4032	2	3 ....	\$.46	\$.414	\$.276
303829CH	39-01-4052	2	5 .....38	.307	.258	

## Panel Mount Plugs w/o Mounting Ears

303802CH	39-01-4036	3	3 ....	\$.37	\$.302	\$.254
303811CH	39-01-4046	3	4 .....49	.404	.295	
303837CH	39-01-4056	3	5 .....53	.461	.329	

## Single Row Headers

- Voltage: 600V
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500VAC
- Insulation resistance: 1000MΩ min.
- Contact: brass or phosphor bronze

## Vertical Headers w/ Pegs

Part No.	Product No.	Fig.	Positions	1	10	100
304565CH	39-30-1039	4	3 ....	\$.90	\$.537	\$.433
304573CH	39-30-2035	4	3 .....91	.555	.448	
304581CH	39-30-2045	4	4 ....1.49	1.24	.884	
304590CH	39-30-2056	4	5 ....1.55	.903	.721	

## Right Angle Headers w/ Pegs

304602CH	39-30-3035	5	3 ..\$1.02	\$.603	\$.482	
304611CH	39-30-3045	5	4 ....1.00	.96	.542	
304629CH	39-30-3055	5	5 ....1.55	1.35	.903	

## Double Row Receptacles

Part No.	Product No.	Fig.	Positions	1	10	100
303562CH	39-01-2020	6	2 ....	\$.27	\$.215	\$.162
303571CH	39-01-2040	6	4 .....41	.341	.232	
303589CH	39-01-2060	6	6 .....40	.361	.243	
303597CH	39-01-2080	6	8 .....45	.406	.274	
303600CH	39-01-2100	6	10 .....50	.445	.299	
303618CH	39-01-2120	6	12 .....56	.501	.336	
303626CH	39-01-2140	6	14 .....69	.612	.411	
303634CH	39-01-2160	6	16 .....70	.621	.417	
303642CH	39-01-2180	6	18 .....81	.723	.485	
303651CH	39-01-2200	6	20 .....89	.792	.532	
303669CH	39-01-2220	6	22 .....1.20	1.07	.713	
303677CH	39-01-2240	6	24 .....99	.876	.589	

## Double Row Plugs

## Panel Mount Plugs w/ Mounting Ears

Part No.	Product No.	Fig.	Positions	1	10	100
303685CH	39-01-2021	7	2 ....	\$.32	\$.264	\$.193
303693CH	39-01-2021	7	4 .....47	.392	.267	
303706CH	39-01-2061	7	6 .....51	.364	.268	
303714CH	39-01-2081	7	8 .....42	.371	.25	
303722CH	39-01-2101	7	10 .....50	.445	.299	
303731CH	39-01-2121	7	12 .....51	.454	.305	
303749CH	39-01-2141	7	14 .....70	.517	.399	
303757CH	39-01-2161	7	16 .....75	.602	.523	

## Double Row Headers

- Voltage: 600V
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500VAC
- Insulation resistance: 1000MΩ min.
- Contact: brass or phosphor bronze

## Vertical Headers w/o Pegs – Tin Plated

Part No.	Product No.	Fig.	Positions	1	10	100
303845CH	39-28-1023	8	2 ....	\$.68	\$.415	\$.344
303853CH	39-28-1043	8	4 .....89	.761	.551	
303861CH	39-28-1063	8	6 ....1.19	.95	.658	
303870CH	39-28-1083	8	8 ....1.37	1.19	.827	
303888CH	39-28-1103	8	10 ....1.65	1.45	.96	
303896CH	39-28-1123	8	12 ....1.79	1.27	.888	
303909CH	39-28-1143	8	14 ....2.25	1.98	1.39	
303917CH	39-28-1163	8	16 ....2.49	2.11	1.46	
303925CH	39-28-1183	8	18 ....2.89	2.56	1.71	
303933CH	39-28-1203	8	20 ....3.39	2.95	2.01	
303941CH	39-28-1223	8	22 ....3.15	2.46	1.68	
303950CH	39-28-1243	8	24 ....3.79	3.16	2.25	

## Vertical Headers w/o Pegs – Gold Plated, 30μ"

303968CH	39-29-0023	8	2 ....	\$.88	\$.686	\$.589
303976CH	39-29-0043	8	4 ....	2.05	1.81	1.07
303984CH	39-29-0063	8	6 ....	3.29	2.85	2.00
303992CH	39-29-0083	8	8 ....	4.45	3.97	2.65
304004CH	39-29-0103	8	10 ....	5.05	4.47	2.99
304012CH	39-29-0123	8	12 ....	5.65	5.22	3.49
304021CH	39-29-0143	8	14 ....	6.85	6.08	4.07
304039CH	39-29-0163	8	16 ....	7.75	6.87	4.59
304047CH	39-29-0183	8	18 ....	8.65	7.68	5.14
304055CH	39-29-0203	8	20 ....	9.15	8.12	5.43
304063CH	39-29-0223	8	22 ....	10.55	9.30	6.22
304071CH	39-29-0243	8	24 ....	11.49	10.58	6.76

## Right Angle Headers w/ Pegs – Tin Plated

304080CH	39-30-1020	9	2 ....	\$.64	\$.566	\$.383
304098CH	39-30-1040	9	4 ....	1.02	.907	.604
304101CH	39-30-1060	9	6 ....	1.31	.968	.664
304119CH	39-30-1080	9	8 ....	1.48	1.31	.877
304127CH	39-30-1100	9	10 ....	1.79	1.05	.864
304135CH	39-30-1120	9	12 ....	2.49	2.16	1.47
304143CH	39-30-1140	9	14 ....	2.75	2.38	1.62
304151CH	39-30-1160	9	16 ....	3.05	2.35	1.70
304160CH	39-30-1180	9	18 ....	3.39	3.05	2.05
304178CH	39-30-1200	9	20 ....	3.95	3.49	2.33
304186CH	39-30-1220	9	22 ....	4.45	3.92	2.61
304194CH	39-30-1240	9	24 ....	4.95	4.39	2.92

## Strain Reliefs

- Voltage: 600V
- Current: 9A
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 1000MΩ min.

Part No.	Product No.	Fig.	Positions	1	10	100
304637CH	15-04-0296	11	6 ..\$1.04	\$1.00	\$.95	
304645CH	15-04-0343	11	8 ....	1.14	1.08	.979
304653CH	15-04-0345	11	12 ....	1.15	1.10	.998

Molex Mini-Fit Jr. Contacts on next page.

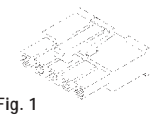


Fig. 1

Fig. 2

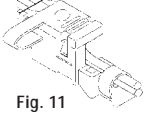
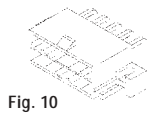
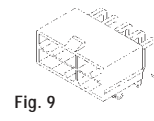


Fig. 9

Fig. 10

Fig. 11

## Double Row Headers (Continued)

## Right Angle Headers w/ Pegs – Gold Plated, 30μ"

Part No.	Product No.	Fig.	Positions	1	10	100
304207CH	39-30-1021	9	2 ..\$1.69	\$1.50	\$1.00	
304215CH	39-30-1041	9	4 ....	2.15	1.90	1.26
304223CH	39-30-1061	9	6 ....	2.65	2.36	1.57
304231CH	39-30-1081	9	8 ....	3.19	2.85	1.90
304240CH	39-30-1101	9	10 ....	3.85	3.39	2.26
304258CH	39-30-1121	9	12 ....	3.29	3.25	2.65
304266CH	39-30-1140	9	14 ....	5.25	4.67	3.12
304274CH	39-30-1161	9	16 ....	6.05	5.41	3.60
304282CH	39-30-1181	9	18 ....	4.55	4.39	3.44
304291CH	39-30-1201	9	20 ....	7.25	6.47	4.31
304303CH	39-30-1221	9	22 ....	8.65	7.70	5.13
304311CH	39-30-1241	9	24 ....	10.15	9.05	6.03

## Right Angle Headers w/ Flange – Tin Plated

304320CH	39-29-1028	10	2 ....	\$.82	\$.685	\$.466
304338CH	39-29-1048	10	4 ....	1.06	.865	.665
304346CH	39-29-1068	10	6 ....	1.35	1.06	.782
304354CH	39-29-1088	10	8 ....	1.65	1.26	.876
304362CH	39-29-1108	10	10 ....	1.85	1.55	1.16
304371CH	39-29-1128	10	12 ....	2.15	1.81	1.36
304389CH	39-29-1148	10	14 ....	2.69	2.23	1.63
304397CH	39-29-1168	10	16 ....	2.69	2.46	1.84
304400CH	39-29-1188	10	18 ....	3.15	2.82	1.88
304418CH	39-29-1208	10	20 ....	3.75	3.32	2.21
304426CH	39-29-1228	10	22 ....	3.85	3.41	2.28
304434CH	39-29-1248	10	24 ....	4.69	3.97	2.78

## Right Angle Headers w/ Flange – Gold Plated, 30μ"

304442CH	39-29-5023	10	2 ..\$1.65	\$1.43	\$.96	
304451CH	39-29-5043	10	4 ....	1.85	1.64	1.10
304469CH	39-29-5063	10	6 ....	2.75	2.38	1.62
304477CH	39-29-5083	10	8 ....	3.09	2.75	1.83
304485CH	39-29-5103	10	10 ....	4.09	3.65	2.43
304493CH	39-29-5123	10	12 ....	4.15	3.66	2.44
304506CH	39-29-5143	10	14 ....	5.15	4.55	3.04
304514CH	39-29-5163	10	16 ....	5.89	5.22	3.49
304522CH	39-29-5183	10	18 ....	6.75	5.99	4.01
304531CH	39-29-5203	10	20 ....	7.29	6.47	4.32
304549CH	39-29-5223	10	22 ....	8.65	7.68	5.13
304557CH	39-29-5243	10	24 ....	8.65	8.18	5.47

## Hand Crimp Tools for Mini-Fit Jr. Contacts



308030CH

227491CH

308030CH: Cuts &amp; strips 14-24 AWG wires

227491CH: Cuts &amp; strips 18-30 AWG wires

Part No.	Product No.	Length	Color	1	5
308030CH	W-HT-1919	8.3"L	Red .....	\$14.99	\$13.99
227491CH	W-HT-1921	8.3"L	Yellow ..	14.99	13.99



# Mini-Fit Jr. Contacts and IC Sockets

Color Code Legend  
New Sale Lower\$ QtySave



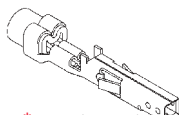
## .165" (4.2mm) Mini-Fit Jr. Contacts

- Voltage: 600V
- Current: 9A (112A current rating)
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 1000MΩ min.
- Material:
  - \*A: Brass (pre-plated tin over copper)
  - \*B: Brass or copper (post-plated tin over nickel)
  - \*C: Brass (post-plated tin over nickel)
  - \*D: Phosphor bronze (pre-plated gold over nickel)

\*Prepackaged: order in increments of 10, 100 or 1000



\*Fig. 1 (Male)



\*Fig. 2 (Female)

### Male Contacts

Part No.	Product No.	Desc.*	AWG	1	10	100
304661CH	44478-3112↑	1B	16 .....	\$.20	\$.171	\$.152
304688CH	39-00-0224	1D	16 .....	.85	.704	.508
304709CH	39-00-0096	1C	16 .....	.62	.517	.376
304725CH	39-00-0041	1A	18-24 .....	*	.056	.047
304741CH	39-00-0220	1D	18-24 ...	.76	.704	.389
304792CH	30490-2012	1D	18-24 ...	.25	.244	.209
304805CH	39-00-0054	1C	18-24 ...	.43	.404	.306
304821CH	30490-1012	1D	18-24 ...	.83	.686	.494
304768CH	44478-1112↑	1B	22-28 ...	.28	.261	.171
304864CH	39-00-0049	1A	22-28 ...	.20	.071	.07
304881CH	39-00-0222	1D	22-28 ...	.76	.649	.466
304901CH	39-00-0088	1C	22-28 ...	.43	.40	.361

• Sold in 4000 piece reel

Part No.	Product No.	Desc.*	AWG	Price
307985CH	39-00-0040	1A	18-24	..... \$108.00

### Female Contacts

Part No.	Product No.	Desc.*	AWG	1	10	100
304670CH	4476-3112↑	2C	16 .....	\$.32	\$.261	\$.155
304696CH	39-00-0186	2D	16 .....	.85	.70	.51
304717CH	39-00-0168	2C	16 .....	.58	.479	.346
304733CH	39-00-0039	2A	18-24 .....	*.064	.059	
304750CH	39-00-0182	2D	18-24 ....	.46	.44	.389
304776CH	44476-1112↑	2B	18-24 ....	.32	.261	.188
304784CH	44485-1212↑	2D	18-24 ...	.88	.733	.523
304813CH	39-00-0164	2C	18-24 ....	.43	.39	.345
304872CH	39-00-0047	2A	22-28 ...	.20	.14	.096
304899CH	39-00-0184	2D	22-28 ...	.45	.435	.428
304910CH	39-00-0166	2C	22-28 ...	.58	.478	.323

• Sold in 4000 piece reel

Part No.	Product No.	Desc.*	AWG	Price
307993CH	39-00-0038	2A	18-24	..... \$140.00



## Hand Tools for Mini-Fit Jr.



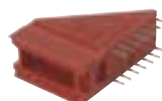
- 304928CH: Crimp tool
- Accepts wire range from 14-24 AWG
- 304936CH: Extraction tool

Part No.	Product No.	1	5
304928CH	63811-1000	..... \$42.99	\$39.99
304936CH	11-03-0044	..... 19.99	18.99

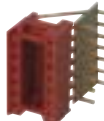
## ARIES Series 800 Vertisockets

### With Bifurcated Contacts

- Body material: UL 94-HB glass filled nylon
- Phosphor bronze spring tempered bifurcated contacts
- Contact plating: 100μ" (2.54μm) tin or 10μ" (.254μm) gold
- Contact current: 1.5A
- Operating temperature: 221°F (105°C) for tin; 257°F (125°C) for gold
- Suggested PCB hole size: .044" (1.12mm) dia.
- Gold plated (except 296770CH – tin plated)
- Center pins: .300" (except 291231CH – .200")



291477CH



291485CH

### Vertical Mount

Part No.	Product No.	Pins L" x W"	1	10	100
291231CH	10-2810-90	10 1.0 x .29 ..	\$4.99	\$4.19	\$3.39
291477CH	14-810-90R	14 1.4 x .39 ....	2.69	2.39	1.85
296770CH	14-810-90T	14 1.4 x .39 ....	3.65	3.25	2.49

### Horizontal Mount

Part No.	Product No.	Pins L" x W"	1	10	100
291485CH	14-823-90	14 1.4 x .39 ..	\$4.15	\$3.69	\$2.85

### Horizontal Mounting w/ Collet Contacts

- Body material: UL 94-HB glass filled nylon
- Brass alloy pin body w/ 200μ" (5.07μm) 93/7tin/lead plating
- Beryllium copper alloy 4-fingered collet contacts
- Operating temperature: 221°F (105°C)
- Contact current: 3A • Center pins: .300" (7.62mm)
- Suggested PCB hole size: .035" (.89mm) dia.



Part No.	Product No.	Pins L" x W"	1	10	100
295241CH	40-6823-10	40 2.0 x .70	\$12.69	\$11.19	\$8.79

## Cinch Jones Plugs and Sockets

### Multiple-Density Solder-Eyelet Connectors with Hood and 180° Clamp

- Insulation material: molded mono-block, black phenolic
- Contact material: plug-brass; socket-phosphor bronze
- Contact plating: cadmium
- Hood material: UL 94V-0 rated thermoplastic
- Operating voltage: 250 VAC RMS maximum
- Current rating: 10 amps
- Contact resistance: 16mΩ maximum



248786CH



248823CH

### Plugs

Part No.	Product No.	Contacts	1	25
248760CH	P-302-CCT	2 .....	\$2.15	\$1.96
248778CH	P-303-CCT	3 .....	2.39	2.15
248786CH	P-304-CCT	4 .....	3.09	2.49
248794CH	P-306-CCT	6 .....	2.89	2.62

### Sockets

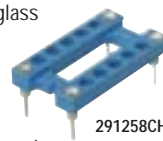
Part No.	Product No.	Contacts	1	25
248807CH	S-302-CCT	2 .....	\$2.29	\$2.11
248815CH	S-303-CCT	3 .....	2.69	2.43
248823CH	S-304-CCT	4 .....	2.69	2.46
248831CH	S-306-CCT	6 .....	3.09	2.80

## Jameco's Got the Docs

We offer free technical documents for most of the products we carry. Find them easily on the product spec page @ [www.Jameco.com](http://www.Jameco.com)

## ARIES Oscillator Sockets

- Body material: blue UL 94V-0 glass filled polyester thermoplastic
- Brass alloy pin, 1/2 hard w/ 200μ" (1.27μm) 93/7 tin/lead plating
- Contact current: 3A
- Center pin spacing: .300" (7.62mm)
- Operating temperature: 221°F (105°C)
- Suggested PCB hole size: .030" (.76mm)

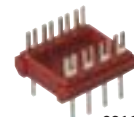


291258CH

Part No.	Prod. No.	Pos.	L" x W"	1	10	100
291282CH	1108800	8	.40 x .40 ..	\$.56	\$.47	\$.38
291258CH	1107741	14	.70 x .40 ....	.56	.47	.38



## DIP Headers and Header Covers



291119CH



291451CH

- Standard cover/body material is red UL 94-HB glass filled nylon
- High temperature cover/body material is black UL 94V-0 4/6 nylon

### Series 600 Headers w/ Coined Contacts

- Coined contacts are brass 1/2 hard
- Contact plating: 100μ min., tin
- Contact current rating: 2A
- Operating temperature: 221°F (105°C)
- Fork contacts: accepts up to .025" (.64mm) dia. leads

Part No.	Product No.	Pos.	*W (in.)	1	10	100
291119CH	08-600-10	8	.300 ..	\$1.09	\$.96	\$.79
291311CH	14-600-10	14	.300 ....	1.55	1.37	1.11
291573CH	16-600-10	16	.300 ....	1.69	1.49	1.22
291872CH	18-600-10	18	.300 ....	1.89	1.67	1.35
291944CH	20-600-10	20	.300 ....	2.05	1.79	1.45
291995CH	24-600-10	24	.600 ....	2.49	2.19	1.79
295128CH	28-600-10	28	.600 ....	2.89	2.55	2.06

\* Center to center pin width

### Series 650 Header Covers

Part No.	Prod. No.	Pos.	*Ht. (in.)	1	10	100
291127CH	08-650-10	8	.125 ....	\$.48	\$.395	\$.335
291338CH	14-650-10	14	.125 ....	.49	.40	.33
291451CH	14-650-20	14	.375 ....	.53	.44	.36
291653CH	16-650-10	16	.125 ....	.52	.43	.36
291661CH	16-650-20	16	.375 ....	.52	.43	.36
291881CH	18-650-10	18	.125 ....	.61	.50	.41
291952CH	20-650-10	20	.125 ....	.60	.50	.41
292007CH	24-650-10	24	.125 ....	.67	.56	.45
292023CH	24-650-20	24	.375 ....	.79	.68	.46
295136CH	28-650-10	28	.125 ....	.87	.74	.61

\* Max. component height

## Low Profile IC Socket Kit

Includes:

- 20-drawer component cabinet (319599CH),
- 20 clear plastic drawers (319601CH),
- 20 clear dividers (319610CH), pg 244 and
- 30 adhesive labels for drawers to identify parts in kit
- 10 ea. 22LP and 24SLP, pg 111
- 20 ea. 18LP, 24LP, 28LP and 40LP, pg 111
- 50 ea. 8LP, 14LP, 16LP and 20LP, pg 111



SAVE \$22

Part No.	Description	Wt. (lbs.)	1	10
85075CH	300 pcs. LP IC socket kit	5.5	..... \$25.19	\$22.88

Blue Part No. = Limited Quantity Available

**EJECT-A-DIP DIP Collet Sockets****With Solder Tail Pins**

- Latch and body: UL 94V-0 glass-filled polyester thermoplastic
- Brass alloy pin body w/ 200µ" (5.08µm) 93/7 tin/lead plating
- Beryllium copper alloy 6-fingered collet contact w/ 10µ" (0.25µm) gold plating
- Contact current: 3A
- Insulation resistance: 10,000MΩ @ 500VDC
- Withstanding voltage: 1000VRMS
- Operating temp.: -67°F to 257°F (-55°C to 105°C)
- Center pins: 291493CH/291830CH – .300"; 295216CH/295259CH – .600"
- Suggested PCB hole size: .030" (.76mm) Dia.

**Lower \$\$\$****Vertical Mount**

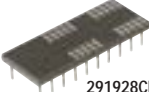
Part No.	Product No.	Pins	L" x W"	1	10	100
291493CH	14-C280-10	14	.95 x .40	\$3.09	\$2.49	\$1.85
291830CH	16-C280-10	16	1.05 x .40	3.29	2.65	1.99
295216CH	32-C182-10	32	1.89 x .70	5.55	4.49	3.85
295259CH	40-C182-10	40	2.29 x .70	7.05	5.69	4.89

**SOIC/SOJ to DIP Adapters**

- Board material: .062" thick FR-4 with 1 oz. copper traces on both sides
- Brass alloy pins 1/2 hard with 200µ" (5.08µm) minimum tin plating
- Operating temperature: 221°F (105°C)
- Suggested PCB hole size: .028" (.71mm) Dia.

**Lower \$\$\$****Series 35000X**

- Center pins: .300" (7.62mm)
- SOIC package (except 291928CH – SOJ)



Part No.	Product No.	Pins	L" x W"	1	10	100
291207CH	08-350000-10	8	.400 x .460	\$6.59	\$5.59	\$4.50
291291CH	14-350000-10	14	.700 x .450	6.55	5.55	3.99
291514CH	16-350000-10	16	.800 x .450	6.55	5.59	4.65
291864CH	18-350000-10	18	.900 x .450	6.55	5.55	4.05
291910CH	20-350000-10	20	1.0 x .450	6.55	5.55	4.05
291928CH	20-350001-10	20	1.0 x .420	6.05	5.99	5.35
291979CH	24-350000-10	24	1.2 x .450	4.45	3.85	3.75
292074CH	28-350000-10	28	1.4 x .400	6.05	5.23	5.00

**Series 45000X**

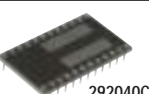
- Center pins: .400" (10.16mm)
- SOJ package



Part No.	Product No.	Pins	L" x W"	1	10	100
295179CH	32-450001-10	32	1.6 x .530	\$9.09	\$8.99	\$8.89

**Series 65000X**

- Center pins: .600" (15.24mm)
- SOIC package (except 295187CH – SOJ)



Part No.	Product No.	Pins	L" x W"	1	10	100
295187CH	32-650000-10	32	1.6 x .700	\$10.35	\$10.25	\$10.15
292040CH	24-650000-10	24	1.2 x .700	9.19	8.55	6.75
295144CH	28-650000-10	28	1.4 x .700	10.35	10.25	10.15

**Series 516 ZIF Sockets**

- Body, handle, and cam are 94V-0 glass-filled polyester thermoplastic
- Copper beryllium pins w/ 50µ" (1.27µm) tin plating
- Contact current: 1A
- Operating temperature: 221°F (105°C)
- Center pins: .600" (15.24mm)
- Suggested PCB hole size: .035" (.89mm) Dia.

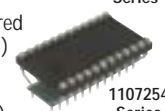
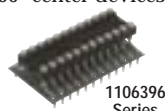


Part No.	Product No.	Pins	L" x W"	1	10	100
295110CH	28-516-10	28	1.2 x .785	\$8.99	\$8.19	\$7.75

**Row-to-Row DIP Adapter Socket**

These sockets allow the use of .300" (7.62mm) center devices when the PCB is drilled on .600" (15.24mm) centers and vice versa, giving the flexibility of using .600" or .300" center devices in the same application.

- Socket body: UL 94-HB glass-filled nylon
- Brass alloy pin body w/ 200µ" (1.27µm) 93/7 tin/lead plating
- Beryllium copper alloy 4-fingered collet contact w/ 30µ" (0.76µm) gold plating
- Contact current: 3A
- Operating temp.: 221°F (105°C)
- Suggested PCB hole size: .035" (.89mm) dia.

**Series 1106396 – .300" to .600" adapter**

Part No.	Product No.	Pins	1	10	100
296737CH	1106396-24	24 .....	\$9.69	\$7.39	\$6.79
296745CH	1106396-28	28 .....	10.89	8.29	7.55

**Series 1107254 – .600" to .300" adapter**

Part No.	Product No.	Pins	1	10	100
296753CH	1107254-24	24 .....	\$9.69	\$7.39	\$6.79
296761CH	1107254-28	28 .....	10.89	8.29	7.55

**PLCC Test & Burn-In Zero Insertion Socket****Series 536**

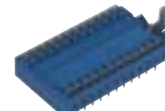
- Black body UL 94V-0 glass-filled polyphenylene sulfide
- Beryllium copper alloy contacts w/ 12µ" (.30µm) gold plating
- Contact current: 1A
- Contact resistance: 30mΩ max. (initial)
- Insulation resistance: 1000MΩ min.
- Dielectric strength: 700VAC cont. for 1 minute
- Self inductance: 8.9nH at 10MHz
- Operating temp.: -67°F to 338°F (-55°C to 170°C)
- Size: 1.772"L x 1.339"W



Part No.	Product No.	Pins	1	10	100
295267CH	44-536-11	44 .....	\$60.49	\$60.39	\$60.29

**Series 526 Low Profile ZIF Socket**

- Body: UL 94V-0 glass-filled polyester thermoplastic
- Beryllium copper alloy spring tempered contacts w/ 200µ" (5.08µm) tin plating
- Zinc alloy cam
- Operating temp.: -67°F to 221°F (-55°C to 105°C)
- Contact current: 2A
- Contact resistance: 10mΩ max.
- Breakdown voltage: 1000VAC min.
- Center pins: .600" (15.24mm)
- Suggested PCB hole size: .035" (.89mm) Dia.



Part No.	Product No.	Pins	L" x W"	1	10	100
296788CH	24-526-10	24	1.45 x .75	\$5.65	\$5.19	\$4.39
102744CH	28-526-10	28	1.64 x .75	5.49	4.99	4.49
102752CH	40-526-10	40	2.24 x .75	6.95	6.39	5.75

**Lowest Price Guarantee**

Found a product at a lower print advertised price? We'll beat that price by 10% right down to our cost!

**High Temp. Universal Zero Insertion DIP Test****Series X55X**

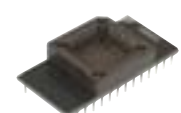
- Accepts devices on .300" to .600" (7.62mm to 15.24mm) centers
- Contacts are normally closed to eliminate dependence on plastic to sustain contact
- Socket body: UL 94V-0 glass-filled PPS
- Stainless steel handle
- Contact current: 1A
- Beryllium nickel alloy contacts w/ 50µ" (1.27µm) nickel boron
- Insulation resistance: 1000MΩ
- Dielectric withstanding voltage: 1000VAC
- Operating temperature: 482°F (250°C)
- Center pins: .600" (15.24mm)
- Gold plating (except 296796CH – tin plating)



Part No.	Product No.	Pins	L" x W"	1	10	100
292058CH	26-6554-11	26	1.3 x 0.9	\$10.95	\$9.59	\$9.55
295161CH	28-6554-11	28	1.4 x 0.9	11.85	10.39	10.25
295208CH	32-6554-11	32	1.6 x 0.9	13.15	11.49	11.39
295232CH	40-6554-11	40	2.0 x 0.9	15.69	13.79	13.39
295291CH	48-6554-11	48	2.4 x 0.9	19.39	16.19	16.09
103991CH	24-6554-10	24	1.8 x 0.9	7.49	6.79	5.99
104002CH	28-6554-10	28	2.0 x 0.9	8.45	7.39	7.15
104011CH	32-6554-10	32	2.1 x 0.9	9.95	8.49	8.29
104029CH	40-6554-10	40	2.5 x 0.9	11.25	9.80	9.45
296796CH	48-6554-10	48	2.4 x 0.9	13.49	11.89	11.79

**PLCC to-DIP Adapter with Socket****Series 653000**

- Converts PLCC packaged ICs to DIP footprints
- Adapter body: FR-4; .062" (1.58mm) thick with 1 oz. minimum copper traces
- Brass alloy solder tail pins w/ 200µ" (5.08µm) 93/7 tin/lead
- Current rating: 1A
- Operating temperature: 221°F (105°C)
- Center pins: .600" (15.24mm)
- Suggested PCB hole size: .028" (.71mm) Dia.



Part No.	Product No.	Pos.	L" x W"	1	10	100
295152CH	28-653000-10	28	1.4 x .705	\$23.59	\$23.49	\$23.39
295195CH	32-653000-10	32	1.6 x .705	35.65	32.65	27.05

**DIP/SOIC to TO Adapter**

8-pin DIP socket or 8-pin SOIC footprint on top and a circular 8-pin TO can male footprint at the bottom. ICs now available only in 8-pin DIP or SOIC can be readily mounted on boards having TO thru-hole footprints without having to redesign the board.

- Board thickness: .062"
- Male pin: brass alloy with 200µ tin plating
- Suggested PCB hole size: .028" Dia.

**323272CH: DIP to TO adapter**

- Socket body: black UL 94V-0
- Female pin: brass alloy with 10µ gold plating
- Female pin contact: beryllium copper with 10µ gold plating
- Accepts leads .015" to .025" Dia.; .100" to .125" long
- Current rating: 3A
- Dimensions: 0.4"L x 0.4"W x 0.23"H

**323264CH: SOIC to TO adapter**

- 1 ounce copper traces on both sides
- Dimensions: 0.375" Dia.

Part No.	Product No.	1	10	100
323272CH	1109522	\$8.35	\$7.89	\$7.49
323264CH	1109814	11.09	10.29	9.85



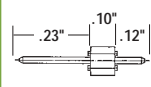
**JAMECO** ValuePro

## .100" Male Headers (Gold)

- Solder to PC boards for instant plug-in access via shorting blocks, right
- Insulator: UL94V-0 polyester
- Snap apart to fit your application
- Contact material: phosphor bronze
- Current rating: 1 amp • Contact area: gold
- Temperature range: -55°C to +120°C
- .025" square posts on a .100" x .100" matrix
- Use with crimp connector housing, pg 112

\*Prepackaged: order in increments of 10, 100 or 1000

### .100" Straight Male Headers



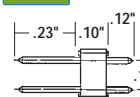
Single Row



Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
108337CH	SMH02	2 .....	*	\$ .16	\$ .14	\$ .13
109575CH	SMH03	3 .....	*	.17	.15	.135
117559CH	SMH04	4 .....	*	.17	.15	.135
153699CH	SMH06	6 .....	*	.17	.15	.135
153701CH	SMH08	8 .....	*	.20	.17	.15
103392CH	SMH10	10 .....	*	.18	.14	.10
103376CH	SMH17	17 .....	*	.16	.14	.13
103368CH	SMH20	20 .....	*	.25	.23	.21
202825CH	SMH22	22 .....	*	.25	.233	.21
103350CH	SMH25	25 .....	*	.25	.21	.16
103341CH	SMH30	30 .....	.35	.31	.28	.25
68339CH	SMH36	36 .....	.42	.38	.34	.29
160881CH	SMH40	40 .....	.49	.44	.40	.36

**JAMECO** ValuePro

### .100" Straight Male Headers



Double Row

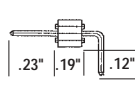


Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
115027CH	923804DS	4 .....	*	\$ .10	\$ .09	\$ .07
115035CH	923806DS	6 .....	*	.18	.16	.14
109516CH	923808DS	8 .....	*	.18	.16	.14
67820CH	923810DS	10 .....	*	.18	.16	.14
203810CH	923812DS	12 .....	.60	.55	.49	.44
118455CH	923814DS	14 .....	.45	.40	.36	.33
109567CH	923816DS	16 .....	.55	.49	.45	.39
203828CH	923818DS	18 .....	.65	.59	.55	.47
53479CH	923862DS	20 .....	.59	.55	.48	.43
203836CH	923822DS	22 .....	.70	.63	.50	.38
203844CH	923824DS	24 .....	.70	.65	.59	.49
203852CH	923828DS	28 .....	.75	.69	.55	.39
203879CH	923830DS	30 .....	.75	.69	.61	.50
203861CH	923832DS	32 .....	.75	.68	.54	.40
53516CH	923864DS	34 .....	.75	.69	.61	.55
203887CH	923836DS	36 .....	.80	.72	.58	.43
203895CH	923838DS	38 .....	.80	.72	.58	.43
53559CH	923866DS	50 .....	.60	.55	.49	.45
68574CH	923860DS	60 .....	.70	.65	.59	.55
103405CH	923872DS	72 .....	.85	.75	.69	.59
117196CH	923880DS	80 .....	.90	.80	.75	.65

#### Other Manufacturers — Limited Great Deals

53495CH	923863DS	26 .....	.63	.57	.45	.34
53532CH	923865DS	40 .....	.59	.53	.42	.31

### .100" Right Angle Male Headers



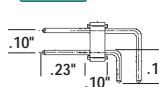
Single Row



Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
153728CH	RMH08	8 .....	.45	.40	.30	.25
103270CH	RMH36	36 .....	.75	.64	.58	.41

**JAMECO** ValuePro

### .100" Right Angle Male Headers

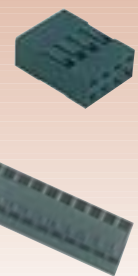


Double Row



Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
203908CH	923804DR	4 .....	.38	.34	.31	.28
203916CH	923806DR	6 .....	.49	.44	.30	.24
203924CH	923808DR	8 .....	.49	.44	.35	.26
203932CH	923810DR	10 .....	.59	.53	.48	.39
203941CH	923812DR	12 .....	.59	.53	.42	.31
203959CH	923814DR	14 .....	.65	.58	.47	.34
203967CH	923816DR	16 .....	.65	.59	.53	.43
203975CH	923818DR	18 .....	.65	.58	.47	.34
53575CH	923820DR	20 .....	.65	.59	.53	.47
203983CH	923822DR	22 .....	.65	.58	.47	.34
203991CH	923824DR	24 .....	.65	.58	.47	.34
53583CH	923826DR	26 .....	.69	.62	.51	.36
204003CH	923828DR	28 .....	.69	.62	.50	.37
204011CH	923830DR	30 .....	.75	.68	.54	.40
204020CH	923832DR	32 .....	.75	.68	.54	.40
204038CH	923834DR	34 .....	.75	.68	.54	.40
204046CH	923836DR	36 .....	.75	.68	.61	.50
204054CH	923838DR	38 .....	.75	.68	.54	.40
53604CH	923840DR	40 .....	.85	.75	.57	.50
53612CH	923850DR	50 .....	.85	.75	.57	.50
103413CH	923872DR	72 .....	1.15	.99	.89	.75
139563CH	923880DR	80 .....	1.35	1.19	1.09	.99

See page 112 for  
.100" Non-Polarized  
Connector Housings  
and Crimp Pins.



**JAMECO** ValuePro

## .100" and 2mm Shorting Blocks



22023CH (open) 112432CH (closed) 152670CH (closed)

- Mates to .025" square posts on .100" centers
- Shorting socket jumper to address or code strip line plugs
- Mate with male headers, above
- Pin material: phosphor bronze

Open: open on top to allow for a test point

Closed: closed – functionally they are the same  
119263CH: 2mm shorting block (for disk drives)

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	10	100	1000
22023CH	Top open, black (.100")	\$.12	\$ .09	\$ .06
119263CH	Top open, black (2mm)	.15	.13	.096
112424CH	Top open, blue (.100")	.12	.09	.06
112416CH	Top open, red (.100")	.12	.09	.06
19140CH	Top closed, black (.100")	.12	.09	.06
112441CH	Top closed, blue (.100")	.12	.09	.06
112432CH	Top closed, red (.100")	.20	.18	.12
152670CH	Top closed, black (.100")	.19	.15	.12

**JAMECO** ValuePro

## Machine Contact Single-In-Line Female Sockets

- Machine tooled
- Solder tail and wire wrap



Part No.	Description	1	10	100	500
102200CH	Single x 10-pin	\$.25	\$.22	\$.20	\$.18
78641CH	Single x 30-pin	.89	.80	.68	.61
175919CH	Single x 36-pin	1.19	1.09	.97	.87
101282CH	Single x 20-pin WW2†	1.49	1.35	1.09	.80
104053CH	Single x 30-pin WW3*	1.95	1.75	1.49	1.35

† Lead length: .435" (2) \* Lead length: .575" (3)

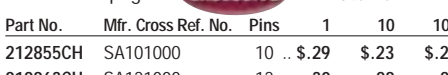
#### Other Manufacturers — Limited Great Deals

192840CH	Single x 11-pin	\$.44	\$.40	\$.32	\$.24
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**JAMECO** ValuePro

## Machine Contact Dual-In-Line Female Sockets

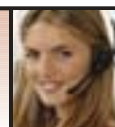
- 0.100" centers
- Solder tail contact: .114"L
- Pin sleeve: tin
- Contact clip: gold



Part No.	Mfr. Cross Ref. No.	Pins	1	10	100
212855CH	SA101000	10 ..	\$.29	\$.23	\$.21
212863CH	SA121000	12 ....	.30	.28	.25
212871CH	SA141000	14 ....	.35	.33	.30
212880CH	SA161000	16 .....	.40	.37	.34
212898CH	SA181000	18 ....	.45	.42	.38
184612CH	SA201000	20 ....	.50	.46	.42
212901CH	SA221000	22 ....	.55	.51	.47
212919CH	SA241000	24 ....	.60	.56	.51
212927CH	SA321000	32 ....	.80	.74	.68
212935CH	SA481000	48 ..	1.20	1.11	1.01

**Over 99% of Our Products  
Are In Stock**

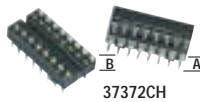
Place your order by 6PM EST for  
same business day shipment.





## Dual Wipe Solder Tail Low-Profile Sockets

- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Thru-hole lead length: .140" (A)
- Body height: .188" (B)
- Prepackaged: order in increments of 10, 100 or 1000



Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
112192CH	6LPD	6	0.3 ...	\$.09	\$.06	\$.05
112205CH	8LPD	8	0.3 ...	.09	.08	.07
112213CH	14LPD	14	0.3 ...	.10	.075	.05
112221CH	16LPD	16	0.3 ...	.13	.115	.095
112230CH	18LPD	18	0.3 ...	.16	.14	.12
307977CH	22LPD	22	0.3 ...	.14	.14	.12
112281CH	24SLPD	24	0.3 ...	.14	.13	.09
112265CH	24LPD	24	0.6 ...	.158	.129	.089
112299CH	28SLPD	28	0.3 ...	.21	.19	.17
112301CH	32LPD	32	0.6 ...	.22	.187	.14
112310CH	40LPD	40	0.6 ...	.26	.23	.19
167396CH	48LPD	48	0.6 ...	.26	.23	.21

### Other Manufacturers — Limited Great Deals


#### Single & Dual Wipe Low-Profile Sockets

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
51570CH	8LP*	8	0.3 ...	\$.063	\$.054	\$.045
37161CH	14LP*	14	0.3 ...	.081	.063	.054
37372CH	16LP*	16	0.3 ...	.09	.081	.054
38113CH	18LP*	18	0.3 ...	.099	.084	.063
38607CH	20LP*	20	0.3 ...	.108	.09	.063
112248CH	20LPD†	20	0.3 ...	.153	.13	.098
39132CH	22LP*	22	0.4 ...	.108	.09	.085
39378CH	24SLP*	24	0.3 ...	.153	.13	.098
39335CH	24LP*	24	0.6 ...	.16	.15	.11
112264CH	24LPD†	24	0.6 ...	.158	.136	.122
40301CH	28LP*	28	0.6 ...	.171	.117	.081
112272CH	28LPD†	28	0.6 ...	.189	.161	.12
41110CH	40LP*	40	0.6 ...	.171	.153	.108
112326CH	64LPD†	64	0.9 ...	.162	.139	.104

\* Included in IC Socket Kit, pg 108 † Dual Wipe

## SIMM Sockets

- Locking tabs
- Tinned contacts
- Memory module sockets
- Keyed mounting posts



Part No.	Description	1	10	100	500
100301CH	Single x 30-pin, vert.	\$.52	\$.47	\$.43	\$.39

### Other Manufacturers — Limited Great Deals

72531CH	Dual x 30-pin, vert.	\$.24	\$.20	\$.099	\$.09	\$.082
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## PLCC Surface Mount Sockets

- Current: 1A
- Dielectric strength: 600VAC for 1 minute
- Insulator resistance: 5000MΩ minimum
- Temperature surface mount: -55°C/+170°C



Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
152688CH	PLCC44D	44	\$.75	\$.68	\$.54	\$.40
307951CH	850-68-99ST	68	.86	.78	.69	.66

### Other Manufacturers — Limited Great Deals

152696CH	PLCC68D	68	\$.62	\$.34	\$.31	\$.28	\$.26
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## Machine Tooled Solder Tail Low-Profile Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .177" (A)
- Body height: .117" (B)



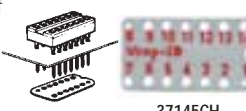
Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	1000
167003CH	6MLPT	6	0.3 ...	\$.29	\$.26	\$.18	\$.16
51625CH	8MLP	8	0.3 ...	.25	.22	.19	.17
37196CH	14MLP	14	0.3 ...	.42	.38	.33	.30
37401CH	16MLP	16	0.3 ...	.47	.43	.37	.34
65584CH	18MLP	18	0.3 ...	.55	.49	.43	.39
38623CH	20MLP	20	0.3 ...	.59	.55	.45	.39
39386CH	24SMLP	24	0.3 ...	.65	.59	.47	.35
114411CH	28SMLP	28	0.3 ...	.85	.75	.65	.55
40328CH	28MLP	28	0.6 ...	.83	.75	.65	.59
105380CH	32MLP	32	0.6 ...	.95	.85	.75	.65
41136CH	40MLP	40	0.6 ...	1.19	1.05	.79	.69
42059CH	48MLP	48	0.6 ...	1.29	1.16	1.04	.89
200707CH	64MLP	64	0.9 ...	1.35	1.25	1.15	.99

### Other Manufacturers — Limited Great Deals

192209CH	224SMLP	22	0.4 ...	\$.53	\$.48	\$.387	\$.29
39351CH	24MLP	24	0.6 ...	.65	.59	.47	.35
184680CH	284SMLP	28	0.4 ...	.80	.72	.58	.43

### Wire Wrap Socket I.D. Markers


- Quick identification of pin numbers
- Slips onto socket before wrapping
- Plastic
- Can easily write location, part number or function



Part No.	Prod. No.	Pins	Width (in.)	1	10	100	500
51561CH	8ID	8	0.3 ...	\$.44	\$.35	\$.30	\$.28
37145CH	14ID	14	0.3 ...	.35	.31	.28	.24
37356CH	16ID	16	0.3 ...	.29	.26	.25	.23
38105CH	18ID	18	0.3 ...	.49	.45	.39	.35
38586CH	20ID	20	0.3 ...	.55	.49	.45	.41
39327CH	24ID	24	0.6 ...	.59	.52	.43	.38
40299CH	28ID	28	0.6 ...	.65	.55	.47	.45
41101CH	40ID	40	0.6 ...	.89	.79	.69	.65

## PLCC Solder Tail Sockets

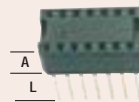
- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Thru-hole lead length: .125"
- Body height: .375"



Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
71263CH	G1P428	28	\$.56	\$.44	\$.34	\$.29
71811CH	G1P432	32	.55	.48	.41	.39
71618CH	G1P444	44	1.15	.99	.81	.69
72442CH	G1P452	52	.99	.79	.65	.55
71968CH	G1P468	68	1.15	.99	.89	.79
71976CH	G1P484	84	1.29	1.19	.93	.70

## Level 1, 2 & 3 Wire Wrap Sockets

- Contact plating/leads: gold (WW) or tin (TWW); dual wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .315" (L1); .438" (L2); .638" (L3)
- Body height: .300" (A)



### Gold (WW)

Part No.	Prod. No.	Pins	W (in.)	1	10	100	500
51641CH	8WW2	8	0.3 ..	\$1.49	\$1.29	\$1.19	\$.99
37233CH	14WW2	14	0.3 ....	1.49	1.35	1.19	1.09
37479CH	16WW2	16	0.3 ....	1.75	1.59	1.43	1.29
196859CH	18WW3	18	0.3 ....	1.55	1.37	1.20	1.09
38674CH	20WW2	20	0.3 ....	2.25	1.99	1.82	1.65
39394CH	24WW2	24	0.6 ....	1.85	1.63	1.43	1.33
40352CH	28WW2	28	0.6 ....	2.19	1.99	1.75	1.60
41187CH	40WW2	40	0.6 ....	3.15	2.80	2.45	2.29

### Tin (TWW)

Part No.	Prod. No.	Pins	W (in.)	1	10	100	500
112660CH	8TWW2	8	0.3 ....	\$.86	\$.61	\$.58	\$.55
37217CH	14TWW2	14	0.3 ....	1.15	1.03	.93	.84
37436CH	16TWW2	16	0.3 ....	.99	.89	.73	.66
87636CH	18TWW2	18	0.3 ....	1.09	.98	.81	.73
75379CH	20TWW2	20	0.3 ....	1.69	1.52	1.35	1.23
75416CH	24TWW2	24	0.6 ....	1.49	1.35	1.09	.79
75424CH	28TWW2	28	0.6 ....	1.89	1.63	1.36	1.22
41179CH	40TWW2	40	0.6 ....	2.49	2.15	1.79	1.59

### Other Manufacturers — Limited Great Deals

196832CH	14WW1	14	0.3 ..	\$1.05	\$.94	\$.76	\$.57
196841CH	14TWW3	14	0.3 ....	.82	.74	.59	.44

## Level 3 Machine Tooled Wire Wrap Sockets

- Contact plating: gold
- Tin-plated leads
- Contact resistance: ≥5mΩ
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Body height: .115" (A)
- Thru-hole lead length: .365" (L2); .515" (L3)



Blue Part No. = Limited Quantity Available

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
94473CH	8MSWW3	8	0.3 ..	\$.53	\$.46	\$.38	\$.34
62050CH	14MSWW3	14	0.3 ....	.93	.80	.67	.60
37410CH	16MSWW3	16	0.3 ....	1.09	.93	.78	.69
94481CH	18MSWW3	18	0.3 ..	1.09	.93	.78	.74
38631CH	20MSWW3	20	0.3 ..	1.33	1.14	.95	.86
185324CH	22MSWW3	22	0.3 ..	1.39	1.25	1.13	.85
105371CH	24MSWW3	24	0.3 ..	1.49	1.29	1.08	.97
94490CH	24MSWW3	24	0.6 ..	1.35	1.15	.97	.89
200715CH	28MSWW3	28	0.3 ..	1.69	1.43	1.19	1.07
40336CH	28MSWW3	28	0.6 ..	1.69	1.43	1.19	1.07
117057CH	32MSWW3	32	0.6 ..	2.19	1.99	1.79	1.49
94502CH	40MSWW3	40	0.6 ..	2.65	2.28	1.90	1.71
200723CH	48MSWW3	48	0.6 ..	2.99	2.69	2.39	2.15
200731CH	64MSWW3	64	0.9 ..	2.59	2.37	2.15	1.96

### Other Manufacturers — Limited Great Deals

192831CH	224MSWW3	22	0.4 ..	\$.54	\$.49	\$.45	\$.40
313656CH	24MSWW3	24	0.6 ..	1.19	1.05	.88	.79

## .100" Non-Polarized Connector Housings and Crimp Pins

- Mates with .025" square post on pattern of .100" centers (male headers, see pg 110)
- Current rating: 1A • Pin material: brass/tin plated
- Pin wire gauge: 26-22 AWG • Plastic
- Temperature rating: -55°C to +105°C
- Use 159265CH pin crimper, pg 229 and 100765CH below

\* Prepackaged: order in increments of 10, 100 or 1000

		Single Row					
		103190CH	100765CH				
Part No.	Mfr. Cross Ref. No.	Contacts		1	10	100	1000
100811CH	SCH2	2	..... *	\$ .23	\$ .21	\$ .17	
157382CH	SCH3	3	..... *	.24	.22	.18	
100802CH	SCH4	4	..... *	.25	.23	.19	
163686CH	SCH5	5	..... .30	.27	.25	.22	
103211CH	SCH6	6	..... .34	.31	.27	.21	
103202CH	SCH8	8	..... .39	.35	.29	.25	
103190CH	SCH10	10	..... .42	.39	.36	.31	
103181CH	SCH20	20	..... .49	.45	.39	.35	
103157CH	SCH36	36	..... .49	.45	.39	.35	
100765CH	FCH1	Female pin	* .....	.11	.09	.06	
145357CH	MCH1	Male pin	* .....	.15	.135	.12	

		Double Row					
		145357CH	103253CH				
Part No.	Mfr. Cross Ref. No.	Contacts		1	10	100	1000
103253CH	DCH8	8	..... \$ .59	\$ .53	\$ .45	\$ .39	
157420CH	DCH10	10	..... .69	.62	.55	.49	
157438CH	DCH14	14	..... .73	.71	.69	.59	
103237CH	DCH16	16	..... .79	.71	.64	.58	
103229CH	DCH20	20	..... .99	.89	.79	.69	
157462CH	DCH40	40	..... 1.09	.99	.89	.75	
157471CH	DCH50	50	..... .65	.59	.47	.35	
100765CH	FCH1	Female pin	* .....	.11	.09	.06	
145357CH	MCH1	Male pin	* .....	.15	.135	.12	

## USB-A & B Connectors and Pins

1.0 and 2.0



- 174060CH: USB-A & B (2.0) Male Connector
- 3-part housing: tin plate over brass and glass fiber
- 4-pins (P/N 159724CC, see web) required per USB connector
- 161023CH/230949CH/230957CH: USB-A & B (1.0 & 2.0) Female Connectors
- PC mount right angle with board locks
- 230965CH: Male Crimp Pin
- Pin for P/N 174060CH (4 required) • Contact: gold
- Use P/N 159265CH for crimping tool, pg 229
- \* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
161023CH	USB-A 1.0 conn. (F) ...	\$ .79	\$ .69	\$ .62	\$ .56
230949CH	USB-A 2.0 conn. (F) ....	.99	.85	.55	.42
174060CH	USB-B 2.0 conn. (M) ....	.79	.69	.62	.56
230957CH	USB-B 2.0 conn. (F) ....	.99	.85	.55	.42
230965CH	Crimp pin (M) for 2.0 ....	* .....	.125	.09	.065

## .100" Low Profile Keyed Shrouded Headers and Connector CD-ROM 4-Pin Headers and Connector



- 152741CH
- 152725CH
- 152733CH
- Voltage rating: 250V AC/DC
- Current rating: 3A AC/DC
- Insulation resistance: 1000MΩ min.
- Connector material: PBT, 30% glass
- Header material: PBT + 30% glass
- Withstanding voltage: 1000V AC/minute
- Pin material: tin-plated brass
- Recommended crimp tool P/N 99442CH, pg 229
- \* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
152741CH	Straight header .....	\$ .45	\$ .39	\$ .35	\$ .29
152725CH	Right angle header ...	.55	.50	.40	.30
152733CH	Single w/ latch† .....	.43	.37	.22	.16
181673CH	Female pins .....	* .....	.11	.08	.06

† P/N 152733CH requires 4 pins (P/N 181673CH)

## .100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing
- Plastic with gold-plated contacts
- Uses 28 AWG flat ribbon cable, pg 88
- Current rating: 1 amp

Part No.	Mfr. Cross Ref. No.	Width	Contacts	1	10	100	500
42657CH	609-14	0.3"	14 ..	\$ .49	\$ .40	\$ .35	\$ .29
42673CH	609-16	0.3"	16 ....	.55	.45	.35	.30
104096CH	609-20	0.3"	20 ....	.69	.62	.55	.49
42690CH	609-24	0.6"	24 ....	.79	.71	.64	.59
99670CH	609-28	0.6"	28 ....	.89	.80	.72	.59
42711CH	609-40	0.6"	40 ..	1.15	1.05	.95	.85

## Card-Edge Connectors

- Fits all PC boards • .054" to .070" thick

### Solder Eyelet .140" Spacing Between Rows

Part No.	Position	Contacts	1	10	100
39116CH	22/44	Gold .....	\$ 2.95	\$ 2.65	\$ 2.38

### Solder Tail .200" Spacing Between Rows

Part No.	Position	Contacts	1	10	100
40694CH	31/62	Tin (PC/AT) .....	\$ .93	\$ .82	\$ .65
42091CH	49/98	Tin (AT) .....	.89	.59	.39

## .100" DIP Header Plugs

- Gold-plated leads
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead length: .188" • 0.1" spacing between leads

Part No.	Mfr. Cross Ref. No.	Width	Pins	1	10	100
104336CH	8HP	0.3"	8 .....	\$ .79	\$ .67	\$ .57
37129CH	14HP	0.3"	14 .....	1.19	.99	.89
37330CH	16HP	0.3"	16 .....	1.35	1.25	1.09
38578CH	20HP	0.3"	20 .....	1.49	1.35	1.19

## 10' Fiber Optic Cable

- 1000µm core jacketed plastic fiber optic cable (10')

Part No.	Product No.	1	10
171272CH	IF-C-E1000 .....	\$ 6.95	\$ 6.25

## Fiber Optic Infrared Detectors

- Mates with standard 1000µm core jacketed plastic fiber cable
- Connector-less fiber termination and connection
- Inexpensive plastic connector housing
- Compatible with LED emitters, below
- Interference-free transmission from light-tight housing
- Internal micro-lens for efficient coupling
- 169990CH: TTL compatible output infrared detector
- Peak wavelength sensitivity: 800nm
- 169981CH: TTL open-collector output infrared detector
- Peak wavelength sensitivity: 850nm

Part No.	Product No.	Color Dot	1	10
169990CH	IF-D95T	Yellow .....	\$ 5.95	\$ 4.55
169981CH	IF-D96	White .....	\$ 7.99	6.65

⊕ Blue Part No. = Limited Quantity Available

## Infrared and Visible Light Fiber Optic LED Emitters

- Mates with standard 1000µm core jacketed plastic fiber cable (recommend P/N 171272CH, above)
- Internal micro-lens for efficient coupling
- Connector-less fiber termination and connection
- Interference-free transmission from light-tight housing
- Excellent linearity
- Compatible with fiber optic photodetectors, above
- Peak Wavelength Sensitivity:
- 169957CH: 950nm, Vf=1.7V max @ 50mA
- 169965CH: 660nm, Vf=1.8V max @ 50mA
- 169949CH: 660nm, Vf=1.8V max @ 50mA

Part No.	Product No.	Color Dot	1	10
169957CH	IF-E91A	Blue .....	\$ 2.99	\$ 2.19
169965CH	IF-E96	Pink .....	\$ 5.35	3.89
169949CH	IF-E97	Red .....	\$ 5.75	4.19

⊕ Blue Part No. = Limited Quantity Available

For Fiber Optic Kits, see page 252.



## Commercial Customers

Open an account with us to consolidate your monthly billing and save time



## DIN and Mini DIN Plugs and Receptacles

- Solder barrels including strain relief
- See page 88 for cable

Part No.	Pins	Type	1	10	100
142279CH	4	Mini plug	\$.79	\$.68	\$.53
142261CH	6	Mini plug	.89	.77	.59
177244CH	6	Mini receptacle	.99	.85	.69
111878CH	8	Mini plug	.99	.89	.74
177236CH	8	Mini receptacle	1.09	.93	.69
15878CH	5	DIN plug	.52	.47	.41
180873CH	5	DIN receptacle	.52	.45	.34
15886CH	6	DIN plug	.59	.50	.39
15894CH	8	DIN plug	.65	.56	.43

## DIN Female Sockets

- Metal body
- Panel mount with solder lugs

Part No.	Mfr. Cross Ref. No.	# of pins	1	10	100	500
15843CH	DINJ5	5	\$1.29	\$1.15	\$1.05	\$.79
15851CH	DINJ6	6	1.39	1.25	1.15	.99
15860CH	DINJ8	8	1.49	1.35	1.15	1.05

## Right Angle DIN Female Sockets

- Set back: 0.5"
- PC mount contacts

Part No.	Mfr. Cross Ref. No.	# of pins	1	10	100	500
140792CH/119474CH	MDR4S	4 (mini)	\$.69	\$.59	\$.46	\$.34
29399CH	MDR6S	6 (mini)	.75	.68	.54	.40
29399CH	RD5	5	.59	.53	.40	.36

### Other Manufacturers — Limited Great Deals

- Set back: 0.5"
- PC mount contacts
- Plastic/metal body

Part No.	Mfr. Cross Ref. No.	# of pins	1	10	100	500
140791CH	MDR4S	4 (mini)	\$.62	\$.56	\$.45	\$.33
207722CH	MDS8100	8 (mini)	.89	.80	.64	.48

## PCB Centronics Connectors

- Solder-type contacts
- Space between rows: .164"
- Space between pins: 0.1"
- Metal body • PC mount

Part No.	Description	1	10	100
72151CH	36-contact fem., rt angle	\$3.55	\$3.19	\$2.87
72080CH	50-contact fem., rt angle	4.95	4.45	3.95

### Other Manufacturers — Limited Great Deals

159708CH	36-contact fem., straight	\$.53	\$.48	\$.44
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## IDC Centronics Connector

- Contact material: gold plated phosphor bronze; plastic casing
- Current rating: 1 amp
- Temp. rating: -55°C to +105°C
- Use 73251CH IDC crimping tool, pg 229

Part No.	Mfr. Cross Ref. No.	Description	1	10	100
13848CH	CEN36M	36-contact male	\$1.75	\$1.55	\$1.39

## .100" IDC Plug Connectors

- .100" x .100" grid
- Plastic
- Shrouded header w/o mounting ears
- Contact: gold-plated phosphor bronze
- Use with IDC socket for connectors, right

Part No.	Cross Ref. No.	Contacts	1	10	100
29188CH	P40	40	\$1.95	\$1.75	\$1.49
29217CH	P50	50	1.95	1.75	1.49

## .100" Low-Profile Male Shrouded Headers

- Rating: 1A (max.) @ 250VDC
- Contact resistance: 15mΩ max.
- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Use with IDC socket connectors, above

### Straight Male Headers

Part No.	Description	1	10	100	1000
67811CH	10-pin	\$.39	\$.35	\$.32	\$.28
68179CH	16-pin	.44	.40	.35	.32
68291CH	20-pin	.49	.47	.39	.23
68371CH	26-pin	.54	.42	.35	.21
68582CH	34-pin	.79	.65	.46	.31
181104CH	40-pin	.75	.60	.45	.315

### Other Manufacturers — Limited Great Deals

### Right Angle Male Header

Part No.	Description	1	10	100	1000
211182CH	26-pin	\$.41	\$.22	\$.20	\$.18

## .100" (2.5mm) Female Header Receptacles

- Gold plated contacts
- 0.1" contact center

### Right Angle Mount (Side Entry)

Part No.	Contacts	Type	1	10	100	500
71159CH	20	Double row	\$1.25	\$1.10	\$.99	\$.85

### Vertical Mount (Top Entry)

Part No.	Contacts	Type	1	10	100	500
70754CH	8	Single row	\$.59	\$.53	\$.43	\$.35
200782CH	12	Single row	.79	.59	.45	.42
308591CH	16	Single row	.58	.48	.31	.243
308566CH	20	Single row	.69	.57	.37	.289
70720CH	16	Double row	.89	.79	.72	.65
70826CH	20	Double row	.99	.89	.71	.53
105056CH	30	Double row	1.09	.98	.88	.74
163863CH	34	Double row	1.19	1.05	.92	.79
111704CH	40	Double (Tin)	1.29	1.15	.99	.89

### Other Manufacturers — Limited Great Deals

163862CH	34	Double row	\$1.05	\$.94	\$.85	\$.71
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## Centronics Parallel Interface Connector

- Metal Body and Shell Solder-Type Contacts
- Solder eyelets accept 24 AWG wire, pg 88
- Male cable plugs
- Complete with cable boot, shell and hardware

Part No.	Cross Ref. No.	Contacts	1	10	50
42382CH	57-30360	36	\$1.79	\$1.59	\$1.49

## .100" & 2mm IDC Socket Connectors

- Double Row
- Mates with 2 rows of .025" Sq. or Dia. posts on patterns of .100" centers (male headers, see below)
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use crimp P/N 73251CH, pg 229

### Polarized IDC Socket Connectors

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
32491CH	S10	10	\$.29	\$.25	\$.19	\$.15
153947CH	S14	14	.32	.27	.21	.16
119466CH	S16	16	.35	.29	.22	.17
32521CH	S20	20	.39	.32	.25	.18
32563CH	S26	26	.45	.35	.29	.19
32643CH	S34	34	.49	.39	.35	.25
32678CH	S40	40	.55	.45	.39	.29
100386CH	IDC440*	44 (2mm)	.99	.89	.75	.59
32707CH	S50	50	.65	.55	.45	.35
32758CH	S60	60	.75	.68	.61	.50

\*2mm pin spacing

### Non-Polarized IDC Socket Connectors

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
138376CH	SN10	10	\$.35	\$.32	\$.28	\$.24
138325CH	SN20	20	.45	.40	.36	.28
138333CH	SN26	26	.39	.35	.32	.24
138341CH	SN34	34	.45	.40	.35	.28
138350CH	SN40	40	.49	.45	.39	.29
138368CH	SN50	50	.65	.59	.467	.35

## .100" (2.5mm) Straight Male Headers

### With Standard Latch

### Double Row

- 0.1" contact center
- Mount vertical
- Keying slot
- Use with IDC socket connectors, above

Part No.	Description	1	10	100	500
117663CH	10-pin	\$1.29	\$1.16	\$.99	\$.61
71829CH	20-pin	1.39	1.25	1.13	.95
71933CH	26-pin	1.49	1.25	.99	.89
72215CH	50-pin	1.85	1.65	1.49	1.35

## PANAVISE IDC Bench Press and Cable Cutter

- Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
27174CH	M505	Bench press	7.0	\$179.95	\$159.95

### M505 Accessories

27182CH	M507	Cable cutter	0.9	\$66.95	\$61.95
27203CH	M510	Base plate	0.5	26.49	23.49

See page 88 for Gray and Multicolor Ribbon Cables.



## Slim-Line D-Sub Gender Changers



### For Confined Applications!

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)
- Tin plated shells

Part No.	Description	1	10	100
18497CH	9-pin male to male	\$4.95	\$4.49	\$3.99
18489CH	9-pin female to female	4.95	4.49	3.99
56071CH	15-pin male to male	3.95	3.49	2.95
56063CH	15-pin female to female	3.95	3.39	2.55
119319CH	15-pin female to female HD	4.29	3.89	3.49
119301CH	15-pin male to male HD	4.95	4.49	3.95
326537CH	15-pin M-F (pass through)	2.25	2.05	1.79
18446CH	25-pin male to male	4.95	4.49	3.99
18420CH	25-pin female to female	4.95	4.49	3.99
170085CH	25-pin M-F (pass through)	2.95	2.65	2.35

## D-Sub 9-Pin to 25-Pin Serial Adapters

- 10321CH: For PC/XT systems with DB25 serial ports.
- 139985CH: gold-plated contacts, extra long thumbscrews

Part No.	Description	1	10	100
10321CH	DB9 M to DB25 F	\$4.49	\$3.79	\$3.19
189632CH	DB9 M to DB25 M	3.49	3.15	2.85
139985CH	DB9 F to DB25 F	3.95	3.55	3.19

### Other Manufacturers — Limited Great Deals

## D-Sub 9-Pin to 25-Pin Serial Adapters

- 10305CH: For use in AT or other computer systems that have 9-pin D-subserial ports.

- 163740CH/153576CH: For PC/XT systems with DB25 serial ports.

Part No.	Description	1	10	100
10305CH	DB9 F to DB25 M	\$3.15	\$2.69	\$1.99
163740CH	DB9 M to DB25 F, thumbscrews on DB9 side only	2.55	2.19	1.65
153576CH	DB9 M to DB25 F, thumbscrews on DB25 side only	3.55	2.99	2.25

## Full Handshaking Null Modem Adapters

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily.



Part No.	Description	1	10	100
17224CH	1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20			
26243CH	1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7			
26243CH	DB25 M to DB25 F	\$3.95	\$3.65	\$3.49
17224CH	DB25 F to DB25 F	3.49	2.95	2.49

## Standard D-Sub Gender Changers



- Standard 9 and 25-pin D-sub male and female gender changers for interfacing two cables or connectors of the same gender

Part No.	Description	1	10	100
16635CH	D-sub 9-pin male	\$1.95	\$1.75	\$1.49
16643CH	D-sub 9-pin female	1.95	1.75	1.49
22058CH	D-sub 25-pin male	1.95	1.49	1.05
22074CH	D-sub 25-pin female	1.99	1.79	1.65

## Keyboard Adapters



- 159089CH/189771CH: AT keyboard adapter
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN
- 159097CH: PS/2 keyboard adapter
- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)
- 316831CH: USB to PS/2 keyboard adapter
- USB-A female to PS/2 male

Part No.	Length	Housing	1	10	100
159089CH	1.6"	Metal	\$2.95	\$2.65	\$2.39
159097CH	1.4"	Metal	2.95	2.65	2.39
189771CH	1.7"	Plastic	2.95	2.65	2.39
316831CH	2.0"	Plastic	1.79	1.59	1.39

### Other Manufacturers — Limited Great Deals

## PS/2 Keyboard Adapter

- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

Part No.	Length	Housing	1	10	100
157930CH	1.7"	Plastic/metal	\$2.65	\$2.25	\$1.69

## Gender Benders Save Money

I have a box of cables for those "just in case" situations. I go to it five or six times a year. Usually a cable turns up that is almost right; perhaps a PS/2 extension cable when I need a PS/2 to AT cable.

My solution? While I have the most common cables in my stash box, I also keep a supply of gender benders (i.e., changers) with the cables. When a situation comes up, I usually have the solution immediately available. Later, I replace the improvised solution with the right cable and reclaim my gender changer(s). I'm a hero to the person with the problem, and I don't spend inordinate amounts of time looking for a solution.

**Practical Practices**  
Money Saving Tips for the Engineer

## Computer Card Brackets



- For securing cards into bus slots
- Fits standard PC/XT/AT cases
- Length: 4.75"
- See pg 101 for DB connectors

Part No.	Description	Fig.	1	10	100
11754CH	Blank back panel	1	\$1.79	\$1.59	\$1.45
101717CH	For DB9 connector	2	1.79	1.59	1.45
101733CH	For DB25 connector	3	1.79	1.59	1.45
101741CH	For DC37 connector	4	1.79	1.59	1.45
101830CH	For DB9/DB25 conn.	5	1.79	1.59	1.45

## Panel Bracket Cable Assemblies

- Standard computer back panel brackets
- Length: 12"
- Ribbon cable with header connector



Part No.	Description	1	10	25
149614CH	DB9M to 10-pin header			
	DB25M to 10-pin header	\$4.95	\$4.45	\$3.99
149622CH	DB25 to 26-pin header	4.95	3.75	2.65
179995CH	DB9M to 10-pin header			
	DB25M to 10-pin header			
	DB25F to 26-pin header	1.19	1.01	.76

## SCSI Adapters



- See below for SCSI-type connector guide

Part No.	Description	1	10	50
133920CH	50-pin ribbon header			
	SCSI-I to DB25 female	\$5.05	\$4.59	\$4.18
125241CH	50-pin ribbon header to HPDB50 SCSI-II female	9.95	8.45	6.35
167370CH	DB25 female to HPDB50 male SCSI-II	1.39	1.27	1.16

### SCSI TYPE / CONNECTOR REFERENCE TABLE

SCSI type	50-pin Centronics DB25	50-pin Header	Half pitch DB50	VHD8 Centronics	VHD8 Centronics	VHD8 Centronics
SCSI-I	✓	✓	✓			
SCSI-II			✓	✓		
SCSI-II wide					✓	
SCSI-III					✓	✓
RAID: SCA, SCA-2						✓

See page 91 for USB Gender Adapters.



## Amphenol

### BNC Connectors and Adapters

- Frequency range: 0-4GHz
- Contact plating: silver/gold
- Body plating: nickel/tin-lead
- Cable type:

- Working voltage: 500V

223360CH: RG55/141/142/223/400

223394CH: RG59/62/71/140/210/302

223474CH: RG59/62/140/210, Belden 8241/8263/8279/9209

223693CH: RG5/9/87A/214/313/325



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13

Part No.	Product No.	Fig.	Industry No.	Description	1	10	25
223431CH	31-202	1	UG-88C/U	50Ω plug, straight, solder cup	\$4.35	\$3.69	\$2.65
223360CH	31-5	2	UG-89/U	50Ω jack, straight, clamp/solder	5.05	4.54	3.35
223378CH	31-8	3	UG-274/U	50Ω/75Ω T-adapter, jack-plug-jack	12.69	10.42	8.05
223458CH	31-208	3	UG-274A/U	50Ω T-adapter, jack-plug-jack	8.59	6.59	6.49
223394CH	31-12	4	UG-260/U	50Ω plug, straight, clamp	7.29	5.54	5.14
223474CH	31-212	4	UG-260B/U	50Ω plug, straight, clamp/solder	4.19	3.21	2.95
223415CH	31-17	5	CW-159/U	50Ω male shorting cap	6.09	5.73	4.36
223423CH	31-102	6	UG-657/U	50Ω bulkhead receptacle, straight, solder cup	5.35	4.99	4.09
223440CH	31-203	7	UG-290A/U	50Ω receptacle, straight/flange, solder cup	6.79	5.31	3.89
223482CH	31-218	8	UG-491A/U	50Ω in-series adapter, plug-plug	8.35	6.99	5.99
223491CH	31-219	9	UG-914/U	50Ω in-series adapter, jack-jack	4.55	4.22	3.08
223554CH	31-3220	10	UG-492D/U	50Ω bulkhead adapter, straight, jack-jack	10.25	8.83	7.19
223511CH	31-221	11	UG-1094/U	50Ω bulkhead receptacle, straight, solder cup	2.49	1.94	1.39
223538CH	31-2221	12	UG-1094A/U	50Ω bulkhead receptacle, straight, solder cup	2.89	2.48	1.81
223520CH	31-236	11	UG-625B/U	50Ω bulkhead receptacle, straight, pin/pin	2.69	2.16	1.59
223685CH	5575	11	UG-625/U	50Ω bulkhead receptacle, solder	4.15	3.36	3.08
223693CH	6775	13	UG-959/U	50Ω right angle plug, clamp/solder	12.59	9.56	8.54

Lower \$\$\$

## Amphenol

### UHF Connectors and Adapters

- Frequency range: 0-300MHz
- Working voltage: 500V
- Contact plating: nickel & silver
- Cable type:

223600CH/223677CH: RG8/9/87A/214/313/225



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

Part No.	Product No.	Fig.	Industry No.	Description	1	10	25
223562CH	83-1AP	1	UG-646/U	In-series right angle adapter, jack-plug	\$8.15	\$7.59	\$6.16
223571CH	83-1F	2	UG-363/U	In-series bulkhead adapter, socket-socket	12.09	10.25	10.23
223589CH	83-1J	3	PL-258	In-series straight adapter, jack-jack	9.69	7.12	5.59
223837CH	83-1T	4	M-358	In-series T-adapter, jack-plug-jack	11.25	8.65	6.55
223597CH	83-1R	5	SO-239	Non-constant impedance panel receptacle, solder cup	3.09	2.49	2.35
223669CH	83-798	5	SO-239A	Non-constant impedance panel receptacle, solder cup	5.55	4.41	2.88
223600CH	83-1SP	6	PL-259	Non-constant impedance plug, straight, solder-solder	3.65	2.81	2.48
223677CH	83-822	7	PL-259	Non-constant impedance plug, straight, solder-solder	3.95	3.02	2.48

Blue Part No. = Limited Quantity Available



## We're Listening to What You Need

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Please send requests to [info@Jameco.com](mailto:info@Jameco.com)

## Amphenol

### BNC 50Ω Cable Plugs

#### BNC 3-Piece

- Silver-plated
- Frequency range: 0-4GHz with low reflection
- Attachment (outer/inner): crimp/crimp

188306CH: RG58/184

188349CH: RG174/188/316



188306CH



188349CH

Part No.	Product No.	1	10	25
188306CH	31-320-RFX	\$1.49	\$1.26	\$1.03
188349CH	31-315-RFX	1.89	1.63	1.22

## Amphenol

### BNC Adapters



188411CH



188429CH



188402CH

- Frequency range: 0-4GHz with low reflection

188411CH: Straight jack-to-jack

188429CH: Jack-plug-jack

188402CH: Gasketed jack-to-jack

Part No.	Product No.	1	10	25
188411CH	31-219-RFX	\$2.99	\$2.66	\$1.99
188429CH	31-208-RFX	4.15	3.37	2.33
188402CH	31-220G-RFX	3.29	2.94	1.99

## Amphenol

### Type N Crimp Plug

- Silver-plated
- RG58/141
- Attachment (outer/inner): crimp/crimp



Part No.	Product No.	1	10	25
188445CH	82-5375-RFX	\$3.89	\$3.29	\$2.23

## Amphenol

### SMA Brass Plug

- Frequency range: 0-18GHz
- Outer cable attachment: crimp
- Inner cable attachment: solder
- Construction: captive contact
- Type: crimp plug
- For RG174/U, RG188/U, and RG316/U cables



Lower \$\$\$

Part No.	Product No.	1	10	25
188488CH	901-9877-RFX	\$3.05	\$2.66	\$2.14

## Amphenol

### SMA PCB Jacks

- Application: cellular phone, data communication, instrumentation, and video
- 50Ω impedance
- Frequency range: 0-18GHz
- Temperature range: -65°C to 165°C



188509CH 188525CH

Part No.	Product No.	1	10	25
188509CH	901-144-8-RFX	\$3.25	\$2.73	\$2.35
188525CH	901-143-6-RFX	5.19	4.20	3.65

### Type N Adapter

- Male to male
- Nickel plated machined brass construction
- Gold plated contacts



Part No.	Description	1	10	25
309622CH	N-series adapter	\$3.75	\$2.99	\$2.45



## BNC Connectors and Adapters



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9

NEW



Fig. 10



Fig. 11



Fig. 12

Part No.	Mfr. Cross Ref.	Fig.	Industry No.	Description	1	10	25
355098CH	31-2	1	—	50Ω BNC plug, clamp, for RG-58/141/142/400 cable	\$3.59	\$2.75	\$2.55
311335CH	31-10	2	—	50Ω BNC jack, bulkhead	3.69	3.24	2.38
311343CH	31-10-RFX	3	—	50Ω BNC jack, bulkhead	1.89	1.56	1.26
355101CH	31-202	1	—	50Ω BNC plug, clamp, for RG-55/58/141/142/223/400 cable	3.59	3.07	2.23
355119CH	31-203	4	UG-290A/U	50Ω BNC receptacle, panel mount, solder cup	5.65	4.42	3.28
355127CH	31-208-RFX	5	UG-274A/U	50Ω BNC T-adapter, jack-plug-jack	3.29	2.81	1.92
355135CH	31-212	1	UG-260B/U	50Ω BNC plug, clamp, for RG-59/62/71/140/210/302 cable	3.49	2.67	2.48
355143CH	31-219	6	UG-914/U	50Ω BNC straight adapter, jack-jack	3.75	3.51	2.41
355151CH	31-219-RFX	6	—	50Ω BNC straight adapter, jack-jack	2.49	2.21	1.68
355160CH	31-220H	7	UG-492A/U	50Ω BNC bulkhead adapter, jack-jack	6.45	5.75	3.94
311351CH	31-220N-RFX	8	—	50Ω BNC bulkhead adapter, jack-jack	2.59	2.24	1.55
355178CH	31-221	9	UG-1094/U	50Ω BNC bulkhead receptacle w/ grounding lug, solder cup	2.09	1.61	1.18
311378CH	31-315	10	—	50Ω BNC 3-pc cable crimp plug, for RG-174 cable	3.79	3.77	2.58
355215CH	31-315-RFX	11	—	50Ω BNC 3-pc plug, crimp, for RG-174/U; RG-188A/U; RG-316/U cables	1.55	1.36	1.03
355223CH	31-318-RFX	12	—	50Ω BNC bulkhead jack, for RG-174/188/316 cable	2.95	2.75	2.22
311386CH	31-320	13	—	50Ω BNC 3-pc cable crimp plug, for RG-58/141 cable	3.99	3.28	2.41
355240CH	31-320-RFX	11	—	50Ω BNC 3-pc plug, crimp, for RG-58/141 cable	1.19	1.05	.84
311394CH	31-321	14	—	50Ω BNC 3-pc cable crimp plug, for RG-59 cable	4.49	3.48	2.38
311408CH	31-321-RFX	14	—	50Ω BNC 3-pc cable crimp plug, for RG-59 cable	1.25	1.05	.86
355258CH	31-2221	15	UG-1094A/U	50Ω BNC bulkhead receptacle, solder cup	2.39	2.06	1.52
311520CH	31-70008-1000	16	—	75Ω BNC 3-pc plug, crimp, for RG-59/62 cable, Belden 8241/8263/8279/9209 cable	5.85	4.48	3.07
311538CH	31-71000-RFX	17	—	75Ω BNC 3-pc plug, crimp, for RG-6 type 0.295" O.D. cable, Belden 9248/1694A cable	1.89	1.78	1.37
311546CH	31-71008-RFX	18	—	75Ω BNC 3-pc plug, crimp, for RG-59/62 cable, Belden 8241/8263/8279/9209 cable	1.25	1.05	.86
311554CH	31-71013-RFX	19	—	75Ω BNC plug, crimp, for RG-179/187 cable	1.55	1.36	1.05
311562CH	31-71014-RFX	20	—	75Ω BNC jack, crimp, for RG-179/187 cable	1.75	1.56	1.07
311571CH	31-71032	21	—	75Ω BNC 3-pc plug, crimp, for Belden 8281/88281 cable	3.05	2.62	2.08
311589CH	31-71033	22	—	75Ω BNC 3-pc plug, crimp, for Belden 8218 cable	2.89	2.70	1.89



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20



Fig. 21



Fig. 22



## TNC Type Connector

NEW

Part No.	Mfr. Cross Ref.	Fig.	Industry No.	Description	1	10	25
311415CH	31-2367-RFX	23	—	50Ω TNC plug, crimp-crimp, for RG-58/141 cable	\$1.25	\$1.11	\$.92

Fig. 23



## Type N Connectors

NEW

Part No.	Mfr. Cross Ref.	Fig.	Industry No.	Description	1	10	25
311600CH	82-97-RFX	24	UG-58A/U	50Ω Type N receptacle jack, panel mount	\$3.59	\$2.56	\$2.31
311618CH	82-202-1006	25	—	50Ω Type N clamp plugs, for B9913/Amp TWB 4001 cable	6.59	4.97	4.07



Fig. 24



Fig. 25



## SMA Connectors

NEW

Part No.	Mfr. Cross Ref.	Fig.	Industry No.	Description	1	10	25
355282CH	901-143-6RFX	26	—	50Ω SMA jack, right angle, PC mount	\$4.29	\$3.49	\$3.07
355291CH	901-9876-RFX	27	—	50Ω SMA plug, crimp, for RG-58C/U; RG58/U cables	2.55	2.21	1.80
355303CH	901-9877-RFX	28	—	50Ω SMA plug, crimp, for RG-174/U; RG-188A/U; RG-316/U cable	2.55	2.21	1.80



Fig. 26



Fig. 27



Fig. 28



## MMCX Connector

NEW

Part No.	Mfr. Cross Ref.	Fig.	Industry No.	Description	1	10	25
311686CH	908-43200	29	—	50Ω MMCX right angle plug, crimp, for RG-178/U cable	\$6.35	\$5.15	\$4.97

Fig. 29



### Lowest Price Guarantee

Found a product at a lower print advertised price?  
We'll beat that price by 10% right down to our cost!



**JAMECO ValuePro** **A Jameco EXCLUSIVE** **BNC Coax Connectors**

- Miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz



















Part No.	Fig.	Description	Quantity SAVE	1	10	100	500
71458CH	1	BNC male terminator (50Ω)		\$1.55	\$1.15	\$0.99	\$0.89
71790CH	1	BNC male terminator (75Ω)		1.35	1.09	.89	.73
135618CH	2	BNC male with pin and ferrule (RG6)		.89	.69	.45	.39
71482CH	2	BNC male with pin and ferrule (RG58)		1.65	1.49	1.35	1.25
71271CH	2	BNC male with pin and ferrule (RG59/62)		.81	.66	.59	.54
112109CH	2	BNC male with pin and ferrule (RG174)		1.59	1.45	1.29	1.15
119394CH	3	BNC male clamp-on (RG59/62)		1.39	1.25	1.15	.89
108994CH	4	BNC male twist-on (RG58)		1.49	1.35	1.19	.95
71781CH	4	BNC male twist-on (RG59/62)		1.09	.99	.89	.79
71589CH	5	BNC female panel mount (UG-1094A)		1.49	1.35	1.25	1.09
71909CH	6	BNC female/female coupler (UG-914)		1.29	.99	.85	.74
127343CH	7	BNC male/male coupler (UG-491B/U)		1.99	1.79	1.39	1.29
111561CH	8	BNC female isolated bulkhead		2.29	1.99	1.79	1.59
148224CH	9	BNC female bulkhead feed-thru		1.99	1.79	1.59	1.39
148232CH	9	BNC female isolated bulkhead feed-thru		2.49	2.25	1.79	1.35
127351CH	10	BNC M-F right angle (DG-306B/O)		2.49	2.19	1.85	1.59
160928CH	11	BNC female, crimp type (RG58)		1.25	1.09	.99	.89
161921CH	11	BNC female, crimp type (RG174)		1.49	1.35	1.19	1.05
174289CH	12	BNC female chassis mount		1.19	.98	.88	.79
174297CH	13	BNC female twist-on bulkhead		2.25	2.02	1.62	1.22
174254CH	14	BNC male to F connector female		1.99	1.59	1.45	1.19
207183CH	15	BNC male to RG58/59 crimp on		3.99	3.59	2.89	2.15

**JAMECO ValuePro** **A Jameco EXCLUSIVE** **BNC PCB Connectors**

- Maintains matching impedance at 50Ω & 75Ω
- Ideal for LAN cards & precision video

Part No.	Description	Length (L)	1	10	100	500
146510CH	BNC right-angle plastic insulation	1.37"	\$1.95	\$1.75	\$1.49	\$1.25
161656CH	BNC right-angle metal	.861"	2.29	1.99	1.79	1.59

**Other Manufacturers — Limited Great Deals**

• Length: .830"

**SALE**















Part No.	Description	1	10	100	500
210884CH	BNC straight/panel mount metal	<del>\$2.29</del> \$1.35	\$1.20	\$1.09	\$0.99

**JAMECO ValuePro** **A Jameco EXCLUSIVE** **BNC Adapters**



- Silver-plated • General purpose coax T-adapter
- ThinNet/Ethernet LAN adapter

**Quantity SAVE**

Part No.	Description	1	10	100	500
118594CH	Male to female/female T-adapter	\$2.39	\$2.15	\$1.75	\$1.25
207095CH	Female to male/male T-adapter	6.99	6.25	5.59	4.99
72629CH	Female to female/female T-adapter	2.49	2.25	1.99	1.69
207087CH	Female to male/female T-adapter	9.95	8.95	6.45	5.39
100597CH	Male to female/female T-adapter (180°)	5.99	5.39	4.85	3.99
207116CH	Male to female/female/female T-adapter	7.19	6.45	5.79	4.95
117461CH	Male to female/female T-adapter (90°)	4.29	3.89	3.49	2.99
207124CH	Male/male to female/female T-adapter	4.49	4.05	3.25	2.45
207167CH	RCA female to BNC female	1.99	1.79	1.59	1.39
114788CH	RCA female to BNC male adapter	1.35	1.05	.99	.98
207175CH	RCA male to BNC male	1.99	1.79	1.59	1.39
114753CH	RCA male to BNC female adapter	1.59	1.45	1.29	1.09
114770CH	BNC female to "F" connector male adapter	1.79	1.59	1.39	1.19
207141CH	3.5mm mono male to BNC female	1.69	1.49	1.27	.95

**JAMECO ValuePro** **A Jameco EXCLUSIVE** **BNC Male Coax Cables**

**RG6 75Ω Cables**

Part No.	Description	1	10	50	100
176794CH	3' BNC to BNC	\$3.95	\$3.55	\$3.19	\$2.89
176815CH	6' BNC to BNC	4.95	4.49	4.05	3.35

**RG58/U 50Ω Cables**

• For Ethernet networks, oscilloscopes

**Quantity SAVE**

Part No.	Mfr. Cross Ref. No.	Length (ft.)	1	10	50	100
181307CH	CRG58-1RR	1	\$3.65	\$3.29	\$2.95	\$2.75
102314CH	CRG58-1	1.5	3.99	3.49	2.99	2.49
256743CH	CBB-224-24	2	9.75	9.39	8.89	7.99
11404CH	CRG58-3	3	4.29	3.89	3.49	3.15
256760CH	CBB-224-72	6	12.19	11.75	11.12	9.99
102331CH	CRG58-6	6	4.39	3.99	3.59	3.19
152311CH	RG58MF-6*	6	2.95	2.66	2.12	1.59
180822CH	CRG58-10	10	4.49	3.99	3.40	2.99
102349CH	CRG58-12	12	4.95	4.49	3.99	3.39
169818CH	CRG58-15	15	4.95	4.46	3.56	2.67
102381CH	CRG58-100	100	13.49	12.14	9.71	7.28

\*152311CH has male & female coax • Blue P/N = Limited Qty Available

**Other Manufacturers — Limited Great Deals**

Part No.	Description	1	10	50	100	
102357CH	CRG58-25	25	\$6.49	\$5.84	\$4.67	\$3.44
102365CH	CRG58-50	50	9.49	8.54	6.83	5.12
319644CH	205-5100	100	17.09	16.25	15.45	14.65

**RG59/U 75Ω Cables**

• For CATV and video patch cords

Part No.	Mfr. Cross Ref. No.	Length (ft.)	1	10	50	100
86471CH	CRG59-1	1.5	\$2.99	\$2.69	\$2.45	\$2.19
85542CH	CRG59-6	6	3.75	3.39	2.73	2.05
102373CH	CRG59-12	12	5.49	4.95	4.45	3.99
262730CH	EBC-525	25	9.95	8.95	8.05	7.25
262748CH	EBC-550	50	17.05	16.25	15.45	14.69
262764CH	EBC-510	100	30.39	28.89	27.45	25.99

**RG174/U 50Ω Cables**

• For Ethernet networks, oscilloscopes

Part No.	Mfr. Cross Ref. No.	Length (ft.)	1	10	50	100
111472CH	RG174U3	3	\$3.85	\$3.49	\$3.15	\$2.85
111481CH	RG174U6	6	4.59	4.15	3.75	3.35



## SMB Connectors



- For use with RG-174 coax
- 50Ω crimp type • Gold plated
- Use with crimping tool P/N 114534CH, pg 228

Part No.	Description	1	10	50
172363CH	Bulkhead crimp jack .....	\$3.49	\$2.95	\$2.49
172371CH	Cable crimp plug .....	4.29	3.89	3.49



## SMB PCB Connector

- 0-4GHz electrical performance
- Gold plated brass
- Insulation: teflon
- Contact: beryllium copper

Part No.	Description	1	10	50
167311CH	Right angle PCB .....	\$4.45	\$3.89	\$3.25



## SMA/SMB 50Ω Coax Cables

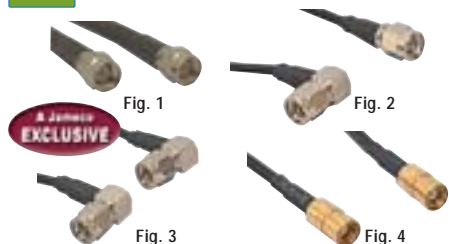


Fig. 1: SMA male to SMA male  
Fig. 2: SMA male to SMA right angle male  
Fig. 3: SMA right angle male to SMA right angle male  
Fig. 4: SMB plug to SMB plug

Part No.	Cable	Fig.	Lgth (ft.)	1	10	50
159370CH	RG58	1	2 ....	\$4.49	\$3.99	\$3.49
159396CH	RG58	1	6 .....	5.49	4.89	4.19
169800CH	RG174	1	0.5 .....	5.59	4.99	4.55
163854CH	RG174	1	1 .....	4.49	3.95	3.39
153381CH	RG174	1	2 .....	4.95	4.29	3.39
153390CH	RG174	1	4 .....	5.49	4.75	4.29
159450CH	RG174	1	4 .....	6.79	6.15	5.55
175126CH	RG174	2	0.5 .....	4.49	3.95	3.49
175134CH	RG174	2	1 .....	4.95	4.25	3.75
175142CH	RG174	3	0.5 .....	5.75	5.25	4.49
175151CH	RG174	3	1 .....	6.25	5.75	4.75
175169CH	RG174	4	0.5 .....	4.25	3.19	2.25
175177CH	RG174	4	1 .....	5.29	4.79	3.95



## 75Ω "F" Connectors/Adapters/Terminators



Part No.	Product No.	Fig.	Description	1	10	50	100
291581CH	200-016	1	Perma-seal, RG-59 coax .....	\$.69	\$.59	\$.55	\$.49
291531CH	200-028	1	Perma-seal, RG-6 coax .....	.69	.59	.55	.49
291709CH	200-050	2	F-jack to jack (nickel) .....	.65	.55	.475	.38
291725CH	200-051	2	F-jack to jack (gold) .....	.95	.85	.79	.75
295371CH	200-053	3	F-panel mount jack to jack (nickel) .....	.65	.55	.475	.38
295380CH	200-107	4	F-R/A jack to plug (nickel) .....	1.59	1.39	1.16	.95
295451CH	200-075	5	F-plug terminator .....	.55	.45	.35	.25
309657CH	200-045	6	RCA female to F male adapter .....	1.75	1.35	.97	.87



## SMA Connectors, Adapters and Couplers



- Application: cellular phone, data communication, instrumentation, and video
- Frequency range: 0-18GHz
- Temperature range: -65°C to 165°C
- 50Ω impedance
- Plating: gold and nickel

### Connectors

Part No.	Description	Cable Type	Plated	1	10	50	100
157972CH	SMA 50Ω crimp type male plug connector	RG58	Gold .....	\$3.99	\$3.59	\$3.29	\$2.99
153365CH	SMA 50Ω crimp type male plug connector	RG174	Gold .....	4.39	3.95	3.55	3.19
145381CH	SMA straight female PCB mount connector, 4 legs	—	Gold .....	5.25	4.75	4.25	3.49
145373CH	SMA 90° female PCB mount connector, 4 legs	—	Gold .....	7.39	6.65	5.95	5.39
153285CH	SMA bulkhead solder female w/ washer, rear mount	RG58/174	Gold .....	3.49	3.15	2.85	2.59
159530CH	SMA female panel mount conn., 4 mounting holes*	RG58/174	Gold .....	2.95	2.65	2.35	2.10
160021CH	SMA female panel mount conn., 2 mounting holes*	RG58/174	Gold .....	3.99	3.59	3.25	2.95
160012CH	Panel mount feed thru connector female – female	—	Nickel .....	4.99	4.49	3.99	3.49

\* 159530CH/160021CH: Solder cup



### Couplers



Part No.	Description	Plated	1	10	50	100
153293CH	SMA straight coupler female – jack-to-jack	Gold .....	\$3.85	\$3.39	\$2.19	\$1.79
161277CH	SMA 3-way coupler, 1 male – 2 female	Gold .....	3.49	3.15	2.85	2.45
161293CH	SMA Straight coupler male – male	Gold .....	3.65	3.29	2.95	2.75
161306CH	SMA Right angle coupler male – female	Gold .....	4.99	4.49	3.99	3.65



### SMA to BNC Adapters



Part No.	Description	Plated	1	10	50	100
153453CH	SMA female to BNC male adapter	Nickel .....	\$2.49	\$2.25	\$1.99	\$1.79
159468CH	SMA female to BNC female adapter	Nickel .....	2.69	2.45	2.19	1.99
153592CH	SMA male to BNC male adapter	Nickel .....	3.99	3.59	3.19	2.89
159476CH	SMA male to BNC female adapter	Nickel .....	2.99	2.69	2.45	2.19

For RG-6/75Ω Patch Cable, see page 97.

For BNC/F-Type Keystone Style Jacks, see page 92.



## Terminal Blocks and Header

- For detailed specifications, please see our website at [www.Jameco.com](http://www.Jameco.com)  
 • 164814CH: Male header (.197") for use with 164793CH and 164806CH

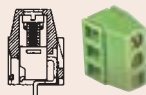


Fig. 1 (99397CH)

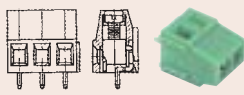


Fig. 2 (160784CH)

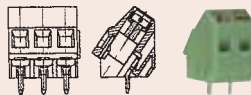


Fig. 3 (161066CH)



Fig. 4 (189675CH)



Fig. 5 (164793CH)



Fig. 6 (164806CH)



Fig. 7 (249084CH)



Fig. 8 (152346CH)

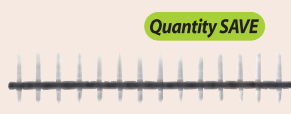


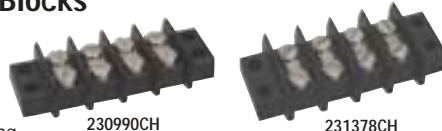
Fig. 9 (164814CH) use with Fig. 5 &amp; 6

Part No.	Mfg.	Product No.	Fig.	Term.	Terminal Spacing	1	10	100	1000
99426CH	Dinkle	DT128/2	1	2	.197"/5mm	.72	.55	.44	.40
99397CH	Dinkle	DT128V3P	1	3	.197"/5mm	.99	.89	.79	.59
160784CH	Dinkle	EK500V-02P	2	2	.197"/5mm	.65	.55	.45	.39
160792CH	Dinkle	EK500V-03P	2	3	.197"/5mm	.95	.85	.75	.69
161066CH	Dinkle	EK500A-02P	3	2	.197"/5mm	.75	.65	.49	.39
161058CH	Dinkle	EK500A-03P	3	3	.197"/5mm	.95	.85	.75	.69
189675CH	OST	EDC500/2DS	4	2	.197"/5mm	.79	.71	.64	.58
189667CH	OST	EDC500/3DS	4	3	.197"/5mm	.89	.80	.72	.61
164793CH	OST	EDC130/2DS	5	2	.197"/5mm	.59	.53	.47	.42
164806CH	OST	EDC130/3DS	6	3	.197"/5mm	.84	.76	.62	.54
249084CH	OST	EDZ750/3	7	3	.200"/5.08mm	1.49	1.39	1.19	.89
152346CH	OST	EDC120/2DS	8	2	.200"/5.08mm	.65	.55	.45	.39
152354CH	OST	EDC120/3DS	8	3	.200"/5.08mm	.47	.44	.39	.30
164814CH	OST	EDSTL130/24	9	24	.197"/5mm	<del>\$2.25</del> 1.99	1.79	1.45	1.05



## Double Row Terminal Blocks

- Voltage rating: 250VAC RMS max.
- Insulation: molded mono block, general purpose phenolic, black, UL rated 94V-1
- Eyelet material: brass with nickel plating
- Screw material: steel with nickel over copper flash plating
- Solder terminal material: brass with electro-tin plating



## 140 Series 15A

- 3750-watts per terminal max.
- 16 AWG wire max. • Size: 0.88"W x 0.41"H
- Screw: 5-40 x 3/16" • Density: .375"

Part No.	Prod. No.	Pos.	Length	1	10	100
230973CH	2-140	2	1.41"	\$.99	\$.89	\$.74
230981CH	3-140	3	1.78"	1.29	1.15	.95
230990CH	4-140	4	2.16"	1.45	1.29	1.05
231001CH	5-140	5	2.53"	1.59	1.44	1.18
231010CH	6-140	6	2.91"	1.99	1.79	1.48
231028CH	7-140	7	3.28"	2.19	1.95	1.59
231036CH	8-140	8	3.66"	2.49	2.24	1.83
231044CH	9-140	9	4.03"	2.79	2.49	2.03
231052CH	10-140	10	4.41"	3.25	2.89	2.35
231061CH	12-140	12	5.16"	3.55	3.15	2.59

## 141 Series 20A

- 5000-watts per terminal max.
- 14 AWG wire max. • Size: 1.13"W x 0.5"H
- Screw: 6-32 x 1/4" • Density: .438"

Part No.	Prod. No.	Pos.	Length	1	10	100
231351CH	2-141	2	1.63"	\$.99	\$.85	\$.72
231360CH	3-141	3	2.10"	1.69	1.45	1.09
231378CH	4-141	4	2.50"	1.79	1.59	1.25
231386CH	5-141	5	2.94"	1.85	1.64	1.33
231394CH	6-141	6	3.38"	1.99	1.75	1.45
231407CH	7-141	7	3.81"	2.49	2.25	1.85
231415CH	8-141	8	4.25"	2.79	2.35	1.94
231423CH	9-141	9	4.69"	2.99	2.59	2.19
231431CH	10-141	10	5.13"	3.19	2.79	2.29
231440CH	12-141	12	6.00"	3.59	3.29	2.69



## DIN Rail-Mounted Terminal Block and DIN Rail

Foot snaps onto standard DIN and DIN 2 rails. Terminals are positively retained on rails, but can be removed without disturbing adjacent units.

- Molded thermoplastic • Spacing: 5.06mm (.199")
- UL rated voltage and current: 600V @ 20A • 14-22 AWG

Part No.	Product No.	Type	1	10	100
237083CH	41296.2	SR2.5	\$.89	\$.79	\$.69
248735CH	2094.0	TS35 x 7.5 (35mm width x 7.5mm depth)	6.79	5.45	4.10



## European Terminal Blocks

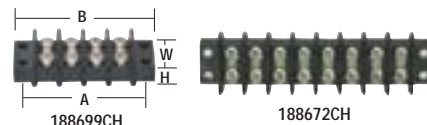
- Number of poles: 12
- 1.2mm raised base
- Working temperature: 230°F (110°C)
- Material: Polyamide 66 (nylon 66), UL94V2, natural
- Terminal insert: brass metal alloy, nickel plated
- Wire protector: stainless steel spring
- Screws: zinc plated, yellow chromed



215010CH

Part No.	Prod. No.	Amps	AWG	1	10	100
215010CH	PA8H	20A	12-22	\$1.79	\$1.59	\$1.29
215028CH	PA10H	30A	10-22	1.89	1.69	1.39
215036CH	PA12H	35A	10-22	2.59	2.29	1.99

## KULKA® 601 GP Series Double Row Terminal Blocks



- Base: general purpose phenolic; 150°C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated • Width (W): 1.12"
- .437" (11 mm) centers • Height (H): .50"
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved



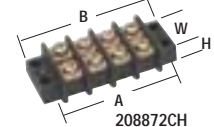
Part Number	Product Number	Poles	Dimensions A" B"	1	10	50
188699CH	601GP4	4	2.19 2.50	\$1.69	\$1.49	\$1.35
188681CH	601GP6	6	3.06 3.38	2.39	2.19	1.89
188672CH	601GP8	8	3.94 4.25	2.95	2.75	2.49
188664CH	601GP10	10	4.81 5.13	3.49	3.25	2.95
188701CH	601GP12	12	5.69 6.00	5.49	4.95	3.95

## Metric Double Row Terminal Blocks

- Wire gauge range: 12-18 AWG
- Body material: black thermoplastic (UL94V-0)
- Terminals: brass tin plated
- Screws: steel nickel plated
- Insulation withstanding voltage: 2000VAC min.
- Insulation resistance: 1000MΩ or more at 500VDC

## 10A @ 600V

- Screw size: M3.0
- Width (W): 19.5mm
- Height (H): 11.9mm



Part Number	Product Number	Poles	Dimensions A B	1	10	50
208856CH	GGE-10-4P	4	47.5 55	\$.99	\$.89	\$.79
208864CH	GGE-10-6P	6	64.5 74	1.39	1.25	1.15
208872CH	GGE-10-8P	8	95 102.5	1.69	1.59	1.49
208899CH	GGE-10-10P	10	104.5 112	2.39	2.15	1.89
208881CH	GGE-10-12P	12	123.5 131	2.79	2.49	2.25

## 20A @ 600V

- Screw size: M3.5
- Width (W): 22.0mm
- Height (H): 13.2mm



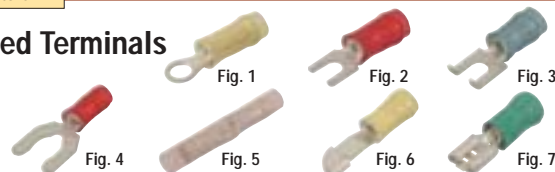
Part Number	Product Number	Poles	Dimensions A B	1	10	50
207538CH	GGE-20-4P	4	54.5 63.5	\$1.39	\$1.25	\$1.10
207546CH	GGE-20-6P	6	76.3 85.3	1.99	1.79	1.59
207554CH	GGE-20-8P	8	98.1 107.1	2.59	2.35	2.15
207562CH	GGE-20-10P	10	119.9 128.9	3.29	2.99	2.69
207571CH	GGE-20-12P	12	141.7 150.7	3.59	3.19	2.79



**AMP P.I.D.G. (Pre-Insulated Diamond Grip) Nylon Insulated Terminals**

Designed for complete and uniform reliability. Nylon insulated terminals feature a tin plated copper body with copper sleeve fitted over the terminal barrel to provide maximum insulation support.

- High dielectric strength
- Temperature rating: 105°C
- Funnel ramp entry
- Copper support sleeve for insulation
- Meets MIL-T-7928

**Ring Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
302594CH	323912	1	#2	26-22	Yellow	\$.21	\$.208	\$.186
302607CH	323914	1	#4	26-22	Yellow	.22	.215	.192
302615CH	323915	1	#6	26-22	Yellow	.21	.208	.186
302623CH	323916	1	#8	26-22	Yellow	.26	.251	.224
302631CH	324075	1	#10	26-22	Yellow	.29	.283	.171
302640CH	328657	1	#2	22-16	Red	.21	.208	.186
302658CH	31880	1	#4	22-16	Red	.21	.19	.15
302666CH	36152	1	#6	22-16	Red	.20	.145	.133
302674CH	31890	1	#8	22-16	Red	.20	.15	.133
302682CH	36154	1	#10	22-16	Red	.20	.15	.133
302691CH	31894	1	1/4"	22-16	Red	.26	.251	.172
302703CH	31895	1	5/16"	22-16	Red	.25	.242	.215
302711CH	31897	1	3/8"	22-16	Red	.31	.305	.176
302720CH	320619	1	#6	16-14	Blue	.20	.145	.133
302738CH	320565	1	#8	16-14	Blue	.20	.145	.133
302746CH	36160	1	#10	16-14	Blue	.20	.145	.133
302754CH	321045	1	1/4"	16-14	Blue	.20	.169	.162
302762CH	328998	1	5/16"	16-14	Blue	.25	.244	.167
302771CH	328999	1	3/8"	16-14	Blue	.29	.284	.172
302789CH	35149	1	#6	12-10	Yellow	.28	.182	.17
302797CH	35108	1	#8	12-10	Yellow	.20	.189	.171
302800CH	35109	1	#10	12-10	Yellow	.20	.189	.171
302818CH	35110	1	1/4"	12-10	Yellow	.33	.327	.218
302826CH	35111	1	5/16"	12-10	Yellow	.33	.327	.218
302834CH	35112	1	3/8"	12-10	Yellow	.33	.327	.218
302842CH	35151	1	1/2"	12-10	Yellow	.52	.286	.268

**Spade Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
302851CH	328394	2	#2	22-16	Red	\$.21	\$.208	\$.185
302869CH	327717	2	#4	22-16	Red	.26	.253	.225
302877CH	34541	2	#6	22-16	Red	.20	.145	.133
302885CH	32053	2	#8	22-16	Red	.21	.208	.185
302893CH	32054	2	#10	22-16	Red	.21	.208	.175
302906CH	35559	2	#6	16-14	Blue	.21	.208	.146
302914CH	32059	2	#8	16-14	Blue	.21	.208	.185
302922CH	321233	2	#8	16-14	Blue	.24	.236	.21
302931CH	32060	2	#10	16-14	Blue	.24	.236	.146
302949CH	326859	2	#6	12-10	Yellow	.42	.416	.37
302957CH	32588	2	#8	12-10	Yellow	.31	.309	.275
302965CH	32589	2	#10	12-10	Yellow	.30	.256	.24

**Flanged Spade Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
302973CH	324608	3	#2	22-16	Red	\$.28	\$.273	\$.243
302981CH	32562	3	#6	22-16	Red	.23	.227	.158
302990CH	32498	3	#8	22-16	Red	.50	.451	.438
303001CH	320861	3	#6	16-14	Blue	.24	.23	.159
303010CH	320862	3	#8	16-14	Blue	.24	.23	.204
303028CH	320863	3	#10	16-14	Blue	.23	.224	.199
303036CH	325150	3	#6	12-10	Yellow	.59	.493	.461
303044CH	32510	3	#8	12-10	Yellow	.25	.223	.19
303052CH	324015	3	#10	12-10	Yellow	.39	.288	.269

**Short Spring Spade Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
303061CH	82927	4	#4	22-16	Red	\$.22	\$.209	\$.186
303079CH	52929	4	#6	22-16	Red	.25	.238	.164
303087CH	52930	4	#8	22-16	Red	.25	.238	.212
303095CH	52931	4	#10	22-16	Red	.35	.345	.258
303108CH	52935	4	#6	16-14	Blue	.25	.238	.164
303116CH	52936	4	#8	16-14	Blue	.28	.27	.24

**Short Spring Spade Tongue Terminals (Continued)**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
303124CH	52937	4	#10	16-14	Blue	\$.28	\$.27	\$.24
303132CH	52941	4	#6	12-10	Yellow	.32	.31	.248
303141CH	52942	4	#8	12-10	Yellow	.36	.35	.282
303159CH	52943	4	#10	12-10	Yellow	.36	.351	.282

**Butt & Knife Disconnect Splices**

Part No.	Product No.	Fig.	Description	Wire (AWG)	Color	1	10	100
303167CH	323994	5	Butt	26-22	Yellow	\$.39	\$.339	\$.317
303175CH	320559	5	Butt	22-16	Red	.50	.496	.356
303183CH	320562	5	Butt	16-14	Blue	.57	.496	.295
303191CH	320570	5	Butt	12-10	Yellow	.85	.82	.499
303204CH	32446	6	Knife disconn.	22-16	Red	.42	.411	.27
303212CH	32448	6	Knife disconn.	16-14	Blue	.42	.411	.27
303221CH	35762	6	Knife disconn.	12-10	Yellow	1.45	1.24	1.11

**Fast-On Receptacles**

Part No.	Product No.	Fig.	Size (in.)	Wire (AWG)	Color	1	10	100
303239CH	60894-1	7	.110 x .032	22-18	Natural	\$.24	\$.232	\$.168
303247CH	640923-1	7	.110 x .020	22-18	Red	.22	.214	.163
303255CH	640917-1	7	.187 x .020	22-18	Red	.20	.162	.13
303263CH	640909-1	7	.205 x .020	22-18	Red	.22	.214	.163
303271CH	640911-1	7	.205 x .032	22-18	Red	.22	.214	.163
303280CH	640903-1	7	.250 x .032	22-18	Red	.20	.16	.13
303298CH	640929-1	7	.110 x .020	16-14	Blue	.22	.214	.163
303301CH	640919-1	7	.187 x .020	16-14	Blue	.22	.214	.163
303319CH	640915-1	7	.205 x .032	16-14	Blue	.22	.214	.163
303327CH	640905-1	7	.250 x 0.32	16-14	Blue	.20	.162	.16
303335CH	42844-1	7	.250 x .032	14-12	Green	.31	.30	.215
303343CH	640907-1	7	.250 x .032	12-10	Yellow	.25	.237	.166

**Vinyl Insulated Solderless Terminals**

- Insulation thickness: .030"
- Funnel ramp entry
- Temperature to 105°C
- Use with crimping tool P/N 72995CH, pg 229
- Sold in increments of 10, 100 or 1000

**Ring & Spade Solderless Terminals**

Part No.	Description	Stud Size	Wire (AWG)	Color	10	100	1000
103683CH	Ring solderless	#6	22-16	Red	\$.11	\$.07	\$.05
103587CH	Spade solderless	#6	22-16	Red	.13	.06	.05
103595CH	Spade solderless	#8	16-14	Blue	.12	.068	.06

**Disconnect Solderless Terminals**

Part No.	Description	Blade Size	Wire (AWG)	Color	10	100	1000
106921CH	Female	.187"	22-16	Red	\$.12	\$.07	\$.05
103667CH	Female	.25"	22-16	Red	.12	.07	.05
109111CH	Female w/ hood	.25"	22-16	Red	.17	.11	.055

**171-Pc. Solderless Terminal Kit**

- Clear, hinged plastic box
- Use crimping tool P/N 72995CH, pg 229

**170 Terminals and Connectors!**



Part No.	Description	1	10	25
10989CH	Terminal kit (170 terminals and connectors)	\$8.95	\$7.95	\$7.25

Qty.	Description	Wire Gauge	Blade Size	Qty.	Description	Wire Gauge	Blade Size
10	Male spade	22-16	1/4"	10	Ring term.	16-14	#10
10	Male spade	16-14	1/4"	5	Ring term.	12-10	#10
10	Fem. spade	22-16	1/4"	5	Ring term.	12-10	#14
10	Fem. spade	16-14	1/4"	10	Spade term.	16-22	#6
10	Ring term.	22-16	#6	10	Spade term.	16-22	#8
10	Ring term.	22-16	#8	10	Spade term.	16-14	#10
10	Ring term.	16-14	#10	10	Butt conn.	16-22	-
15	Ring term.	16-14	#6	10	Butt conn.	16-14	-
10	Ring term.	16-14	#8	5	Butt conn.	12-10	-

# Cable Connectors, Power Jacks and Plugs

## 3M Spring Connectors



This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

**285683CH:** 2#22 to 2#12AWG, orange with blue skirt; replaces the orange, blue, and gray wire nut style connectors as well as 70% of the yellow wire nut and wing style connectors

**285691CH:** 2#18 to 2#8 to 5#12 AWG, red with yellow skirt, replaces both red and yellow wing style connectors

**285704CH:** 4#14 to 2#6 to 3#8 AWG, blue with gray skirt, covers both the large blue and gray connectors

• Prepackaged: order in increments of 10 or 100

Part No.	Product No.	10	100	500
285683CH	3M O/B+	.....\$ .084	.....\$ .075	.....\$ .071
285691CH	3M R/Y+	.....\$ .132	.....\$ .106	.....\$ .10
285704CH	3M B/G+	.....\$ .41	.....\$ .37	.....\$ .32

## Wire Connectors



- Material: UL approved nylon 66, 94V2
- Quick and secure method to splice control wires
- Strip wire before application • Twist on type
- Material: PVC with metal spring, except P/N 182449CH nylon 66, 94-2 and P/N 140716CH PE - metal inside

**182449CH:** UL/CSA approved

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	Color	10	100	1000
182449CH	Crimp 16-14 AWG*	Nat. ....	.....\$ .06	.....\$ .055	.....\$ .049
182511CH	Wire-nut 16 AWG	Blue ....	.....\$ .045	.....\$ .04	.....\$ .035
140716CH	Wire IDC 22-18 AWG	Red ....	.....\$ .15	.....\$ .14	.....\$ .10

\* Requires crimping tool (P/N 72995CH, pg 229)

## Telecom Splice Connectors

- Provides clean, solid, and rapid connection of wires to keep communication lines free of noise
- Available to handle a wide range of conductor sizes

**169754CH:** Y-type

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Color	Wire Gauge	No. of Conductors	10	100	1000
169746CH	Yellow	22-26	2 .....	.....\$ .11	.....\$ .10	.....\$ .08
169754CH	Red	19-263Y	3Y .....	.....\$ .15	.....\$ .14	.....\$ .12

Table Top Power Supplies and Wall Adapters, see pages 169-177.

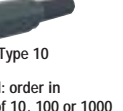
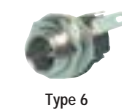
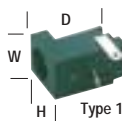
Power/Audio/RCA Plugs and Jacks, see pages 98 & 99.

## Male & Female Power Jacks

- Use with mating power plugs, below
- Dimensions do not include barrel

Mounting	Code
Panel	C
PCB	D
Panel & PCB	E
Cable	F

Terminals	Code
Solder eyelet	A
PC board	B

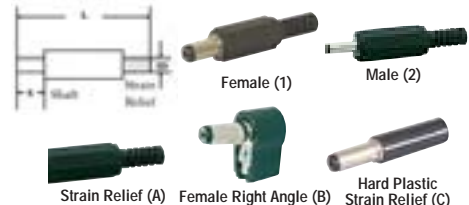


\* Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No.	Dimensions H x W x D (mm)	Type/ Mount	Circuit/ Terminal	Mating Plug (below)	Pricing			
						1	10	100	1000
<b>1.3 mm Male Jacks</b>									
101194CH	PP024	6.0 x 6.0 x 9.0	8/D	1/B	1.3 mm female	\$.63	\$.49	\$.44	\$.39
265421CH	420ECS	7.3 x 5.0 x 11.5	1/D	1/B	1.3 mm female	\$.69	\$.55	\$.49	\$.45
<b>2.1 mm Male Jacks</b>									
						<b>Lower \$\$\$</b>			
101178CH	PP014	10.9 x 9.0 x 14.5	1/D	1/A	2.1 mm female	\$.49	\$.44	\$.39	\$.35
137672CH	PP013	10.9 x 9.0 x 14.5	5/D	3/A	2.1 mm female	\$.40	\$.36	\$.32	\$.29
151589CH	DPJ-02IA	13.0 x 12.6 Dia.	7/C	1/A	2.1 mm female	1.09	.93	.70	.65
151554CH	DPJ-026	15.1 x 8.0 Dia.	6/E	1/A	2.1 mm female	1.49	1.25	1.05	.89
159610CH	PJ1014A	35.8 x 12.6 Dia.	10/F	3/A	2.1 mm female	1.49	1.25	1.09	.89
<b>2.5 mm Male Jacks</b> <b>Blue Part No. = Limited Quantity Available</b>									
109428CH	PJ025PCB	8.0 x 12.0 x 9.6	4/D	1/B	2.5 mm female	*.19	\$.19	\$.15	\$.11
207714CH	HEC0470	11.0 x 9.0 x 14.5	1/D	1/B	2.5 mm female	\$.45	\$.35	\$.29	\$.25
101186CH	PP014A	11.0 x 9.0 x 14.5	1/D	1/A	2.5 mm female	\$.59	\$.53	\$.48	\$.43
151562CH	DPJ-026A	15.1 x 8.0 Dia.	6/E	1/A	2.5 mm female	1.49	1.24	1.13	.99
159505CH	PJ1015A	35.8 x 12.6 Dia.	10/F	3/A	2.5 mm female	1.39	1.25	1.13	1.01
202358CH	HD2388	17.0 x 12.0 Dia.	7/C	3/A	2.5 mm female	1.09	.98	.88	.79
<b>3.5 mm Female Jacks</b>									
101143CH	PJ0352	10.0 x 10.0 x 18.5	2/E	2/A	3.5 mm male	\$.35	\$.31	\$.25	\$.187
109495CH	PJ035PM	10.5 x 9.0 x 8.8	3/C	2/A	3.5 mm male	\$.45	\$.40	\$.36	\$.32
165729CH	PJ0354	8.9 x 5.7 Dia.	9/C	3/A	3.5 mm male	\$.69	\$.59	\$.49	\$.39

## Male & Female Power Plugs

- Use with mating power jacks found in table, above
- Solder eyelets 1mm diameter
- Threaded screw-on housing (strain relief)
- Use with AC/DC wall adapters, pgs 174-177
- Shield crimp tabs
- Use 24 AWG 2 conductor wire, P/N 100280CH, to make custom length power cables, pg 88



Part Number	Mfr. Cross Ref. No.	Description Plug ID x OD (mm)	Dimensions (mm) S (shaft) x L x ID (strain relief)	Type	Pricing			
					1	10	100	1000
Female Plugs								
71191CH	PP137	1.3 x 3.5	9.6 x 43.9 x 4.8 (black)	1/A	\$ .79	\$ .71	\$ .65	\$ .59
191484CH	PP049W	2.1 x 5.5	9.6 x 43.9 x 4.5 (white)	1/A	.69	.62	.56	.50
28759CH	PP049	2.1 x 5.5 (P205)	8.5 x 41.4 x 4.6 (black)	1/A	.59	.49	.39	.29
147328CH	PP049L	2.1 x 5.5 (P205L)	14.0 x 46.4 x 4.6 (black)	1/A	.69	.62	.56	.50
138587CH	PJ021R	2.1 x 5.5 rt. angle	12.0 x 22.5 x 3.9 (black)	1/B	.79	.63	.55	.49
190537CH	PP109S	2.5 x 5.5 (P206S)	9.0 x 43.5 x 4.8 (black)	1/A	.39	.32	.29	.19
28767CH	PP109	2.5 x 5.5 (P206)	10.1 x 45.4 x 4.3 (black)	1/A	.59	.49	.39	.33
191492CH	PP109W	2.5 x 5.5	10.1 x 45.4 x 4.5 (white)	1/A	.39	.35	.32	.26
147336CH	PP109L	2.5 x 5.5 (P206L)	13.6 x 47.5 x 4.8 (black)	1/A	.75	.68	.61	.55
168241CH	PP109N	2.5 x 5.5	13.7 x 36.5 x 3.9 (black)	1/C	.59	.49	.43	.35
Male Plugs								
101135CH	PJ1025	2.5 (P201)	11.1 x 49.0 x 4.3 (black)	2/A	\$ .59	\$ .53	\$ .39	\$ .29
147459CH	PJ1025L	2.5 (P201L)	10.5 x 48.0 x 5.0 (black)	2/A	.39	.27	.26	.22
101151CH	PJ1035	3.5 (P202)	13.8 x 51.8 x 4.2 (black)	2/A	.49	.38	.35	.29
147344CH	PJ1035L	3.5 (P202L)	14.1 x 51.0 x 5.2 (black)	2/A	.49	.38	.35	.29

## Automobile Power Plug & Cord Assembly

- Screw assembly with strain relief
- Accepts .25" x 1.25" fuse
- Plugs directly into cigarette lighter
- 124759CH: 3' cord pigtail end

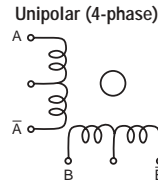
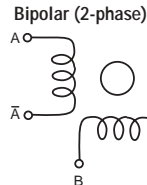
Part No.	Description	1	10	100
115001CH	W/ 5A/250VAC fuse .....	.....\$1.95	.....\$1.65	.....\$1.19
124759CH	W/ 3A/250VAC fuse & 3' cord .....	.....\$1.89	.....\$1.72	.....\$1.69



## Bipolar and Unipolar Stepper Motors

Jameco offers the industry's widest variety of off-the-shelf two-phase bipolar and four-phase unipolar stepper motors for your precision applications. Be sure to check out the wide selection of 2 to 200 VDC models below.

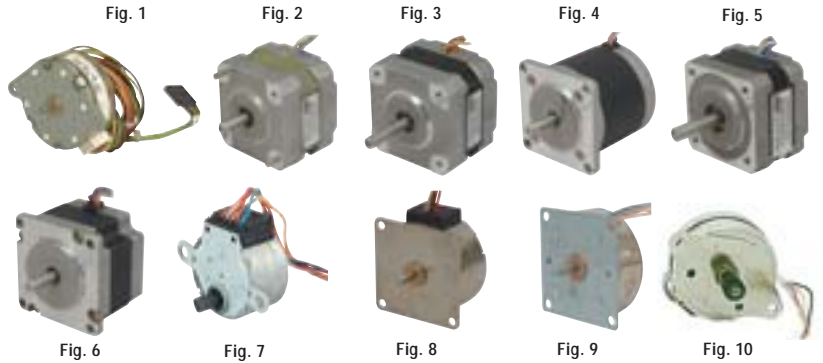
- Bearing type: ball
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998CH, pg 256, for shaft coupler



**Quantity SAVE**

**SALE**

**A Jameco EXCLUSIVE**  
**Lower \$\$\$**



Part No.	Product No.	Fig.	Drive System	Voltage (VDC)	Step Angle	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Weight (lbs.)	Pricing		
																		1	10	50
237526CH	42BYGH001	3	Bipolar	2	1.8	2.1	950	2.3	200	1700	1.22	0.10	0.20	0.95	1.67	1.34	0.50	\$16.49	\$14.02	\$10.51
237497CH	39BYG101-01	2	Bipolar	2.7	1.8	6.8	400	6.5	150	650	1.22	0.10	0.20	0.75	1.54	0.79	0.26	15.95	14.35	12.95
237420CH	35BYG002	3	Bipolar	3.2	1.8	4.8	800	3	15	50	1.02	0.10	0.20	0.83	1.38	1.02	0.30	15.95	13.56	10.17
237489CH	39BYG001	2	Bipolar	5	1.8	5	1000	—	150	1800	1.22	0.10	0.20	0.91	1.54	1.34	0.44	15.95	14.35	12.95
237737CH	42BY48H08	8	Bipolar	5	7.5	9.1	550	—	130	630	1.95	0.14	0.12	0.39	1.65	0.87	0.28	7.89	7.09	6.39
237577CH	57BYG061	4	Bipolar	6	1.8	12	500	24	—	3569	1.86	0.20	0.25	0.83	2.29	1.61	1.00	29.95	26.95	24.25
237518CH	42BYG017	2	Bipolar	6.3	1.8	15	420	16	150	1400	1.22	0.10	0.20	0.51	1.67	1.34	0.50	16.49	14.02	10.51
237454CH	39BYG201	2	Bipolar	9.6	1.8	20	480	—	200	1000	1.22	0.10	0.20	0.20	1.54	0.98	0.44	16.95	14.41	10.81
237411CH	35BYG005	2	Bipolar	12	1.8	20	500	—	1.5	10	1.02	0.10	0.20	0.83	1.38	1.10	0.37	15.95	13.56	10.17
155459CH	42BYG023*	2	Bipolar	12	1.8	30	400	36	220	2100	1.73	0.10	0.20	0.60	1.70	1.30	0.50	17.95	16.29	14.59
237471CH	39BYG401A	2	Bipolar	12	1.8	30	400	32	200	2100	1.22	0.10	0.20	0.95	1.54	1.34	0.44	19.49	17.55	15.79
237817CH	25BY2414	7	Bipolar	12	15	27	440	15.5	48	140	1.26	0.11	0.08	0.37	0.98	0.59	0.08	7.19	6.11	4.58
237462CH	39BYG401	2	Bipolar	14	1.8	31	400	32	200	2300	1.22	0.10	0.20	0.95	1.54	1.34	0.44	19.49	16.57	12.42
237446CH	35BYG008	2	Bipolar	24	1.8	1.3	1600	1	1	9	1.02	0.10	0.20	0.83	1.38	1.14	0.33	16.95	14.41	10.81
237569CH	57BYG009	4	Unipolar	2.4	1.8	1	2400	1.5	—	5914	1.86	0.20	0.25	0.83	2.29	2.20	1.40	32.29	27.45	20.58
237614CH	57BYGH801	6	Unipolar	3.3	1.8	2.2	1500	22	—	5608	1.86	0.20	0.25	0.83	2.24	2.01	1.32	35.19	29.91	22.43
237534CH	42BYGH102	5	Unipolar	3.6	1.8	3	1200	3.2	220	3000	1.22	0.10	0.20	0.95	1.67	1.57	0.50	17.95	16.15	14.55
237551CH	57BYG008	4	Unipolar	4	1.8	3.1	1300	4.4	—	4996	1.86	0.20	0.25	0.83	2.29	2.01	1.30	29.95	26.95	24.25
237593CH	85BYGH450	6	Unipolar	4.4	1.8	2.2	2000	—	—	21414	2.76	0.26	0.51	1.38	3.35	2.95	4.90	161.95	137.66	103.24
237622CH	57BYGH802	6	Unipolar	4.8	1.8	3.2	1500	2.9	—	8157	1.86	0.20	0.25	0.83	2.24	2.20	1.54	37.69	33.95	30.55
237606CH	57BYGH001	6	Unipolar	5	1.8	5	1000	—	—	3976	1.86	0.20	0.25	0.83	2.24	1.61	1.10	32.49	29.25	26.35
237825CH	25BY4801	7	Unipolar	5	7.5	10	500	—	45	110	1.38	0.14	0.08	0.35	0.98	0.56	0.07	6.95	5.91	4.43
237673CH	35BY48B06	1	Unipolar	5	7.5	10	500	65	65	250	1.65	0.13	0.08	0.45	1.38	0.59	0.15	6.49	5.85	5.25
237770CH	20BY20H01	7	Unipolar	5	18	10	500	—	18	75	0.98	0.09	0.06	0.34	0.79	0.71	0.05	5.59	5.09	4.55
223870CH	57BYG070	4	Unipolar	5.4	1.8	3.6	1500	6	977	8974	2.65	0.20	0.25	0.80	2.20	2.20	2.00	49.95	44.96	39.80
237631CH	57BYGH803	6	Unipolar	6.3	1.8	4.2	1500	—	—	14276	1.86	0.20	0.25	0.83	2.24	2.99	2.43	64.59	58.15	52.35
172558CH	42BYG014	2	Unipolar	8.5	1.8	19	450	13	150	1300	1.22	0.50	0.20	0.87	1.67	1.34	0.50	\$12.95	11.29	10.25
237711CH	42BY48H06	8	Unipolar	9	7.5	20	450	18.5	130	800	1.95	0.14	0.12	0.39	1.65	0.87	0.30	7.89	7.09	6.39
237788CH	25BY2402	7	Unipolar	9	15	50	180	14	48	100	1.26	0.13	0.08	0.35	0.98	0.59	0.08	6.95	5.91	4.43
237649CH	25BY2403	7	Unipolar	9	15	20	450	4.5	48	130	1.38	0.14	0.08	0.33	0.98	0.56	0.07	4.69	3.99	3.22
172646CH	42BYG205	4	Unipolar	9.6	1.8	75	480	15	220	2300	1.73	0.10	0.20	0.90	1.70	1.40	0.50	17.95	16.19	14.55
224021CH	42BYG016	2	Unipolar	12	1.8	75	160	40	150	900	1.73	0.10	0.20	0.70	1.70	1.30	0.50	16.95	15.25	13.75
155432CH	42BYG228	2	Unipolar	12	1.8	30	400	23	220	2000	1.73	0.10	0.20	0.90	1.70	1.50	0.50	17.95	16.29	14.59
237542CH	57BYG007	4	Unipolar	12	1.8	32	380	30	—	2957	1.86	0.20	0.25	0.83	2.29	1.61	1.00	25.95	22.06	17.08
238537CH	42BYGH404	5	Unipolar	12	1.8	30	400	25	250	3200	1.22	0.10	0.20	0.95	1.67	1.89	0.60	19.95	17.95	16.15
162026CH	57BYG084	4	Unipolar	12	1.8	20	600	22	725	6000	2.65	0.20	0.25	1.00	2.20	2.00	1.30	26.95	24.29	21.85
237972CH	28BYJ01A1	7	Unipolar	12	5.625	300	40	—	300	552	1.38	0.17	0.20	0.33	1.10	0.75	0.09	4.19	3.79	3.69
237981CH	28BYJ01C	7	Unipolar	12	5.625	300	40	—	350	552	1.38	0.14	0.12	0.20	1.10	0.78	0.10	4.19	3.56	3.55
237753CH	28BYJ012A	7	Unipolar	12	5.625	200	60	—	350	736	1.38	0.16	0.12	0.24	1.10	0.75	0.08	3.59	3.25	3.10
237745CH	28BYJ01A	7	Unipolar	12	5.625	200	60	—	350	736	1.38	0.16	0.12	0.24	1.10	0.75	0.10	3.59	3.25	3.10
237833CH	25BY4803	7	Unipolar	12	7.5	50	240	16	45	110	1.34	0.09	0.08	0.27	0.98	0.59	0.07	6.95	5.91	4.43
237681CH	35BY48B069	1	Unipolar	12	7.5	50	270	28	65	300	1.65	0.13	0.08	0.26	1.42	0.85	0.15	6.49	5.85	5.25
237892CH	42BY48B03	8	Unipolar	12	7.5	57	210	18	105	300	2.28	0.08	0.12	0.30	1.65	0.58	0.21	10.45	8.88	6.66
238158CH	35BY48BH10	1	Unipolar	12	7.5	42	286	25	90	400	1.65	0.13	0.08	0.26	1.38	0.85	0.19	6.89	6.15	4.75
237930CH	42BY48B14	8	Unipolar	12	7.5	50	240	—	145	450	1.95	0.14	0.12	0.39	1.65	0.59	0.22	8.95	7.61	5.85
213321CH	35BY48-27	1	Unipolar	12	7.5	15	800	68	90	460	1.96	0.13	0.08	0.25	1.38	0.83	0.20	\$8.95	5.39	4.91
238131CH	35BY48BH05	1	Unipolar	12	7.5	15	800	10	90	460	1.65	0.13	0.08	0.26	1.38	0.85	0.19	6.89	6.15	4.75
237884CH	42BY48B02	8	Unipolar	12	7.5	40	300	28	130	500	N/A	N/A	0.12	0.30	1.65	0.57	0.21	10.45	8.88	6.66
238043CH	30BYJ05-PH	7	Unipolar	12	7.5	300	40	—	350	552	1.42	0.17	0.20	0.30	1.18	0.69	0.10	4.79	4.29	3.89
237761CH	30BYJ011	7	Unipolar	12	7.5	300	40	—	350	644	1.38	0.18	0.12	0.20	1.18	0.69	0.10	4.35	3.89	3.82

\* 155459CH: Dual shaft



Part No.	Product No.	Fig. (see pg. 103)	Drive System	Voltage (VDC)	Step Angle	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Weight (lbs.)	Pricing		
																		1	10	50
238086CH	35BYJ03	7	Unipolar	12	7.5	400	40	—	450	828	1.65	0.16	0.20	0.33	1.42	0.67	0.12	\$4.95	\$4.21	\$3.99
238035CH	30BYJ03C	7	Unipolar	12	7.5	160	75	—	350	920	1.54	0.17	0.12	0.44	1.42	0.69	0.11	4.79	4.07	3.84
238060CH	35BYJ02	7	Unipolar	12	7.5	200	60	—	400	1104	1.65	0.16	0.20	0.33	1.42	0.67	0.13	4.95	4.21	3.99
238078CH	35BYJ02A	7	Unipolar	12	7.5	200	60	—	400	1104	1.85	0.16	0.20	0.33	1.38	0.69	0.13	4.95	4.21	3.99
238051CH	35BYJ01	7	Unipolar	12	7.5	130	92	—	350	1472	1.65	0.16	0.20	0.33	1.42	0.69	0.12	4.95	4.45	3.99
173180CH	30BYJ02AH*	7	Unipolar	12	7.5	200	60	49.5	400	736	1.42	0.14	0.19	0.36	1.18	0.68	0.10	11.49	9.77	7.32
237657CH	25BY2406	7	Unipolar	12	15	30	400	7.5	48	120	1.26	0.13	0.08	0.35	0.98	0.59	0.07	4.69	3.99	3.22
237956CH	42BY48H05	8	Unipolar	14	7.5	70	200	—	130	450	1.93	0.14	0.12	0.39	1.65	0.87	0.27	8.95	7.61	6.20
237438CH	35BYG007	5	Unipolar	15	1.8	28	400	—	12	70	1.02	0.10	0.20	0.83	1.38	1.10	0.37	16.95	14.41	10.81
237702CH	35BY48BH02	1	Unipolar	16.2	7.5	60	270	50	90	450	1.65	0.13	0.08	0.33	1.38	0.59	0.20	6.49	5.52	4.73
237665CH	25BY2407	7	Unipolar	16.2	15	85	190	19	48	100	1.26	0.16	0.08	0.49	0.98	0.56	0.10	4.69	3.99	3.22
237796CH	25BY2408	7	Unipolar	16.2	15	60	270	16	48	120	1.26	0.17	0.08	0.55	0.98	0.56	0.10	6.95	5.91	4.43
237841CH	25BY4806	7	Unipolar	20	7.5	50	400	16	45	155	1.26	0.13	0.08	0.49	0.98	0.56	0.10	6.95	5.91	4.43
237850CH	25BY4807	7	Unipolar	20	7.5	50	400	16	45	155	1.38	0.14	0.08	0.22	0.98	0.87	0.10	6.95	5.91	4.43
237868CH	25BY4808	7	Unipolar	20	7.5	50	400	16	45	155	1.38	0.14	0.08	0.22	0.98	0.87	0.10	6.95	5.91	4.43
237876CH	25BY4809	7	Unipolar	20	7.5	50	400	16	45	155	1.42	0.35	0.08	0.22	0.98	0.87	0.10	6.95	6.25	5.65
210391CH	STP42N196S	9	Unipolar	24	3.75	110	436	60	60	600	1.95	0.13	0.118	0.42	1.65	0.54	0.18	8.95	1.99	1.85
238115CH	35BY48B08	1	Unipolar	24	7.5	75	320	38	65	270	1.65	0.13	0.08	0.35	1.38	0.59	0.15	6.89	5.86	5.17
238107CH	35BY48B07	1	Unipolar	24	7.5	11	240	70	65	330	1.65	0.13	0.08	0.26	1.38	0.59	0.15	6.89	6.20	5.17
238140CH	35BY48BH07	1	Unipolar	24	7.5	110	240	70	90	350	1.65	0.13	0.08	0.26	1.38	0.85	0.20	6.89	5.86	4.73
237690CH	35BY48BH01	1	Unipolar	24	7.5	165	145	85	90	400	1.65	0.13	0.08	0.33	1.38	0.59	0.19	6.49	5.52	4.73
237921CH	42BY48B08	8	Unipolar	24	7.5	75	320	33	145	600	1.95	0.14	0.12	0.39	1.65	0.59	0.20	8.95	7.61	6.20
210382CH	5620	10	Unipolar	24	7.5	100	436	60	40	380	1.67	0.13	0.078	0.40	1.38	0.58	0.18	8.95	1.99	.84
237905CH	42BY48B04	8	Unipolar	24	7.5	110	220	53	145	630	1.95	0.14	0.12	0.45	1.65	0.59	0.20	8.95	7.61	5.84
237913CH	42BY48B04M	8	Unipolar	24	7.5	120	200	57	145	630	1.95	0.09	0.12	0.45	1.65	0.59	0.22	8.95	8.06	6.20
237948CH	42BY48H02	8	Unipolar	24	7.5	48	500	—	130	630	1.95	0.14	0.12	0.39	1.65	0.87	0.30	8.95	7.61	6.20
237729CH	42BY48H07	8	Unipolar	24	7.5	85	280	78	130	780	1.95	0.14	0.12	0.39	1.65	0.87	0.27	7.89	6.71	6.20
237809CH	25BY2409	7	Unipolar	24	15	118	200	22	48	100	1.37	0.13	0.08	0.37	0.98	0.59	0.10	7.19	6.11	4.58
238123CH	35BY48BH03	1	Unipolar	28.8	7.5	115	278	85	90	450	1.65	0.13	0.08	0.26	1.38	0.85	0.19	6.89	5.86	4.73
237585CH	110BYG450C	4	Unipolar	80-200	0.9/1.8	0.18	6000	2	3060	45,900	5.0	0.33	0.63	2.13	4.33	5.10	8.40	179.95	152.96	114.72

\* 173180CH: Gear ratio 85.25:1

⚙ Blue Part No. = Limited Quantity Available



117954CH



163395CH



163408CH



105881CH



171601CH



238019CH

### Other Manufacturers — Limited Great Deals

Part No.	Mfr. Cross Ref. No.	Drive System	Volt. (VDC)	Step Angle	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Pricing		
																1	10	50
117954CH	LB82773-M1	Bipolar	5	7.5	6	800	7	100	1080	2.60	1.95	0.250	0.75	2.25	1.00	\$4.29	\$3.86	\$3.09
163395CH	5017-935 <sup>1</sup>	Bipolar	8.4	0.9	30	280	25	36	791	1.73	0.15	0.155	0.29	1.64	1.20	4.95	4.21	3.16
163408CH	4017-806 <sup>1</sup>	Bipolar	9.2	1.8	38	240	52	36	664	1.73	0.15	0.155	0.23	1.66	1.25	2.95	2.65	2.35
105881CH	SM4203 <sup>2</sup>	Bipolar	12	3.6	25	480	31	80	600	1.73	0.11	0.197	0.43	1.66	1.31	6.49	5.85	5.29
171601CH	PF35T48L4 <sup>3</sup>	Unipolar	7	7.5	20	350	9	40	680	1.68	0.14	0.078	0.47	1.38	0.58	4.99	4.24	3.18
238019CH	30BYJ01C1	Unipolar	12	7.5	300	40	—	350	644	1.54	0.17	0.12	0.20	1.18	0.68	4.79	4.07	3.84

<sup>1</sup> 163395CH/163408CH: Dual shaft <sup>2</sup> 105881CH: P/N 25216CH (IC, MC3479P, pg 33) bi-phase stepper motor driver can be used to operate; Use P/N 161998CH for shaft coupler, see pg 256

<sup>3</sup> 171601CH: Dual shaft w/ 10 tooth gear

## Servo Motors

### High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.

- Supply voltage: 4.8-6 volts
- Speed: 16 seconds to 60°
- Torque: 49 oz.-in. @ 4.8V
- Can be operated by P/N 151001CH, pg 124



Part No.	Description	Size	1	10
157067CH	Robotic servo	0.8"W x 1.4"D x 1.6"H	\$19.95	\$17.95

### Giant Robotic Ball-Bearing Servo

Extremely powerful! Perfect for large robotic projects where power is a must.

- Torque: 161 oz.-in.
- Speed: 19 seconds to 60°
- Can be operated by P/N 151001CH, pg 124



Part No.	Description	Power Supply	1	10
166351CH	Giant robotic servo	4.8-6 volts	\$49.95	\$44.95

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## Scott Edwards Electronics, Inc.

### Serial Servo Controller Module

- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using a modular jack (P/N 115553CH, pg 93) or modular adapter from DB9 to RJ11 (P/N 114737CH, pg 93)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty



Part No.	Description	1	10
151001CH	Mini SSC II	\$43.95	\$41.79

### 32-Bit Stepper Motor Controller

#### One Axis

- Controls one bipolar stepper motor with 32-bit absolute position
- Interface to PC through RS232 or RS485 @ 2400-19,200bps
- Full, half or wave step modes
- Multiple boards may share same serial line (RS485 only)
- 2 channel general purpose 8-bit A/D input port for reading 0 to 5V
- 4-bit digital input for home limits
- Addressable up to 255 boards
- Size: 4.4"L x 2.3"H
- Weight: 0.7 lbs.



DPONTECH

Includes: Manual and sample code software

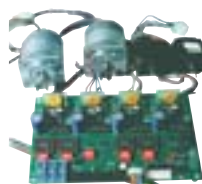
Part No.	Description	1	10
153621CH	32-bit controller	\$158.95	\$150.99

See our extensive motor selection on pages 122-123 & 125-128.



### Multi-Stepper Motor Control Board

- Simultaneous/independent control of up to 16 stepper motors through a single serial port
- High-speed serial communication interface 9.6kbps-230.4kbps
- 11 analog channels, A/D converter, 12-bit resolution
- 24-bit position register; can be read while motor is moving
- Linear acceleration/ deceleration capability up to 8500 step/sec.
- Full step (monophasic and biphasic), half step and external driver modes
- Current-mode coil driver up to 2A/45V
- Automatic power down prevents motor overheating
- External driver control outputs: step, direction and power control
- 26 digital I/O and two SPI interfaces for control of external devices
- 32 bits DDL interface for Windows® 9X, NT & Linux
- Internal FIFO RAM (128 bytes) allows customized motion profiles
- Size: 7.7"L x 5.0"W x 1.0"H • Weight: 0.7 lbs.



Shown w/ motors – not included

Part No.	Description	1	10
168727CH	Stepper motor control board	\$399.95	\$379.95

### Electric Motors and Control Techniques

**TAB Publishing** Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)



- Size: 7.3" x 9.2" • Weight: 1.1 lbs.

Part No.	Description	Price
137162CH	Electric Motors & Control	\$24.95

### Sport232-ST One Axis Stepper Motor Controller and DAC Board

- Full, half steps (monophasic, bi-phasic)
- Shaft encoder capabilities for close loop applications
- 4-channels with signal conditioning 0 to 2.5V, 0 to 10V
- 8 Digital I/O and 8 analog inputs with 12-bit resolution
- Linear acceleration/deceleration, profile movements through 128 bytes internal FIFO
- Home, limit CW/CCW, abort, pulse and direction output signals
- Free 32-bit DLL for Windows 9x/NT/2000/XP, Linux and Labview



Part No.	Description	1	10
355047CH	Sport232-ST	\$147.25	\$137.75



### RMV856-ET Stepped Motor Controller

- CMOS, +5V device combines high performance with low cost
- Capable of generating step rates from 16 steps/sec to 8500 steps/sec using pulse and direction signals
- Internal step register counts up to 16 million steps per motion
- 8 Digital I/Os can be addressed individually by one command
- External programmable events: trigger waits, loops, program branches and stepping motions
- Supports programmable start rate, accel/decel, slew rate and absolute or relative control position
- Programmable stall detection feature controls positioning error • Internal or external direction control and separate limit switch for interfacing analog to digital or digital to analog converter



Part No.	Product No.	Package	1	10	50
355186CH	RMV856-ET	DIP-40	\$48.45	\$44.05	\$40.00
355266CH	RMV856-ET	PLCC-44	\$48.45	\$44.05	\$40.00

## KAE

### Industrial Motion Controllers for Brush, Brushless and Stepper Motors

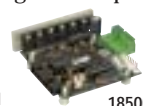
All JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port. For RS-232 to RS-485 adapter see P/N 184971CH (below).



184989CH



323942CH



185009CH



323951CH



184971CH



184997CH



184962CH



184954CH

#### 184989CH/323942CH: PIC-SERVO motor control board

- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32-bit resolution
- Integrated 12 to 48VDC supply power amplifier @ 3A continuous, 6A peak
- Limit switch inputs, general purpose analog input, PWM, DIR output for use with external amps
- P/N 323942CH RS485 serial interface allows up to 32 PIC-SERVO controllers to be controlled from a single serial port

#### 185009CH/323951CH: PIC-SERVO 3PH motor control board for brush or brushless motors

- For 3-phase brushless motors with hall effect sensors or conventional DC brush-type motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply
- Same features as 184989CH above but with support for linear & circular interpolation using the PIC-SERVO CMC chipset
- P/N 323951CH Amplifier capable of driving 6A continuously @ up to 48VDC

NEW

Part No.	Description	Size (L" x W" x H")	1	10
184989CH	PIC-SERVO	3.1 x 2.1 x 0.9	\$179.95	\$161.95
323942CH	KAE-TOVIO	3.1 x 2.1 x 0.9	\$149.95	\$134.95
185009CH	PIC-SERVO 3PH	3.1 x 3.1 x 1.0	\$239.95	\$215.95
323951CH	KAE-TOVIO	3.1 x 3.1 x 0.9	\$214.95	\$194.95

#### 184971CH: Z232-485 serial port adapter

- Lets you operate the controllers above from any standard RS-232 port

#### 184997CH: PIC-STEP motor control board

- Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2A per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

#### 184962CH: PIC-I/O multifunction I/O control board

- 12 I/O bits software configurable as inputs or outputs
- One counter input
- Three 8-bit analog inputs, two PWM outputs with high current drivers

#### 184954CH: Simple sequencer stand-alone controller

- Programmable master controller for building stand-alone systems with the controllers above
- Plugs into a socket on the Z232-485 board (P/N 184971CH, above)

SALE

Part No.	Description	Size (L" x W" x H")	1	10
184971CH	Z232-485	3.1 x 2.1 x 0.5	\$59.95	\$53.95
184997CH	PIC-STEP	3.1 x 2.1 x 0.9	\$159.95	\$143.95
184962CH	PIC-I/O	3.1 x 2.1 x 0.6	\$89.95	\$85.45
184954CH	Simple sequencer	2.1 x 1.0 x 0.4	\$59.95	\$53.95

## 1.5-112VDC Motors

Jameco has a broad selection of DC Motors available for immediate delivery! In fact, we're the only place in the country where you can buy so many types off-the-shelf. And because of our broad selection, major custom-design motor manufacturers send their customers to us! Be sure to check out all the products below.

**Typical applications:**

- RC cars and airplanes
- Arcade games
- Vending machines
- Office automation products
- Motorized toys
- Vacuum cleaners
- Hair removers
- Blow dryers
- Tire pumps
- Paper shredders
- Cordless power tools

**NICHIBO**

Part Number	Product No.	Fig.	Nominal Voltage (VDC)	Voltage Range (VDC)	@ Maximum Efficiency			Efficiency	Terminal Type	Shaft "Dia."	Shaft "Length"	Size (D" x L")	Pricing		
					Current (Amps)	Speed (RPM)	Torque (g-cm)						1	10	100
231917CH	FE-260-2670	5	1.5	1.5-3	0.66	3700	10.5	42.9	Solder	0.078	0.314	0.937 x 1.063	\$1.19	\$1.01	\$0.76
231861CH	UE-260-2850	6	1.5	1.5-3	1.15	4260	13.4	34.9	Solder	0.078	0.314	0.944 x 1.063	1.29	1.10	.82
231853CH	UE-260-2838	6	1.5	1.5-2.4	1.57	5600	15.5	39.0	Solder	0.078	0.314	0.944 x 1.063	1.49	1.27	.95
232135CH	FF-050S-13130	3	2	2-4	0.11	3000	3	42.0	Solder	0.059	0.433	0.610 x 1.059	2.99	2.69	2.42
231909CH	FE-260-18130	5	3	1.5-4.5	0.36	4780	10.3	49.6	Solder	0.078	0.314	0.937 x 1.063	1.19	1.01	.76
231888CH	UE-260-20120	6	3	1.5-4.5	0.45	4780	12.9	49.8	Solder	0.078	0.314	0.944 x 1.063	1.49	1.27	.95
231790CH	PC-130F-18120	7	3	3-4.5	0.51	6260	8.1	35.6	Solder	0.078	0.377	0.803 x 0.984	2.49	2.12	1.59
231870CH	UE-260-2290	6	3	1.5-4.5	0.62	6400	12.9	47.1	Solder	0.078	0.314	0.944 x 1.063	1.49	1.27	.95
231925CH	FE-260-2295	5	3	1.5-4.5	0.63	6850	14	53.9	Solder	0.078	0.314	0.937 x 1.063	1.19	1.01	.76
232071CH	FC-280-2485	1	4.5	4.5-7.2	0.88	7820	26	52.7	Solder	0.078	0.472	0.944 x 1.200	2.09	1.78	1.33
232080CH	FC-280-2865	1	4.5	4.5-6	1.38	9970	30.4	50.1	Solder	0.078	0.472	0.944 x 1.200	2.09	1.88	1.69
231765CH	PC-130SF-15160	7	4.8	3-9	0.42	4960	16.6	42.6	Solder	0.078	0.377	0.803 x 0.984	2.49	2.12	1.59
231984CH	UE-260-14275	6	6	6-12	0.21	4150	13.1	45.8	Solder	0.078	0.314	0.944 x 1.063	1.79	1.52	1.14
231829CH	PC-280-16210	8	6	3-12	0.28	4260	18	47.6	Solder	0.078	0.433	0.944 x 1.200	2.99	2.54	1.91
231781CH	PC-130F-12240	7	6	3-9	0.25	6800	7	33.4	Solder	0.078	0.377	0.803 x 0.984	2.49	2.24	2.02
231992CH	UC-260-18160	6	6	3-9	0.57	7460	22.1	49.9	Solder	0.078	0.314	0.944 x 1.063	1.79	1.52	1.14
231811CH	PC-280-20125	8	6	3-9	0.57	7560	21.1	48.6	Solder	0.078	0.433	0.944 x 1.200	2.99	2.54	1.91
232063CH	FC-280-20120	1	6	4.5-9	0.60	7800	24.1	53.5	Solder	0.078	0.472	0.944 x 1.200	2.09	1.78	1.33
232143CH	FF-050S-11170	3	7	1.5-9	0.17	8500	7	51.3	Solder	0.059	0.433	0.610 x 1.059	2.99	2.54	1.91
232151CH	FF-050S-09250	3	8	5-11.5	0.11	6300	7	51.4	Solder	0.059	0.433	0.610 x 1.059	2.99	2.54	1.91
231802CH	PC-130F-10370	7	9	6-12	0.15	6410	8.5	43.9	Solder	0.078	0.377	0.803 x 0.984	2.49	2.12	1.59
231933CH	UC-280S-10450	9	12	12-24	0.11	2850	21.3	46.5	Solder	0.078	0.433	0.944 x 1.200	2.99	2.54	1.91
232012CH	MD5-12160	10	12	12-24	0.30	4000	34.3	39.1	Solder	0.091	0.622	1.082 x 1.279	2.25	1.91	1.43
231968CH	UC-260-09530	6	12	12-24	0.12	4030	12.5	36.7	Solder	0.078	0.314	0.944 x 1.063	1.79	1.52	1.14
231845CH	PC-280-10420	8	12	6-24	0.13	4270	14.5	43.6	Solder	0.078	0.433	0.944 x 1.200	2.99	2.54	1.91
231731CH	PC-130SF-09480	7	12	6-24	0.11	4800	12.3	49.6	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
231749CH	PC-130SF-09400	7	12	6-24	0.15	5130	14.3	42.5	Solder	0.078	0.377	0.803 x 0.984	2.49	2.12	1.59
231896CH	FE-260-08450	5	12	6-12	0.11	5560	10.3	46.6	Solder	0.078	0.314	0.937 x 1.063	1.19	1.01	.76
231773CH	PC-130F-09490	7	12	6-18	0.51	6260	8.1	39.1	Solder	0.078	0.377	0.803 x 0.984	2.49	2.12	1.59
232160CH	FF-050S-08220	3	12	9-18	0.09	6270	5	31.5	Solder	0.059	0.433	0.610 x 1.059	2.99	2.54	1.91
231757CH	PC-130SF-10315	7	12	6-18	0.25	6350	20	44.6	Solder	0.078	0.377	0.803 x 0.984	2.49	2.12	1.59
232055CH	FC-280-12280	1	12	6-12	0.26	6840	21.4	48.6	Solder	0.078	0.472	0.944 x 1.200	2.09	1.78	1.33
231976CH	UC-260-12335	6	12	6-12	0.24	7050	19.5	50.0	Solder	0.078	0.314	0.944 x 1.063	1.79	1.52	1.14
231837CH	PC-280-15265	8	12	6-12	0.30	7230	25	52.5	Solder	0.078	0.433	0.944 x 1.200	2.99	2.54	1.91
232004CH	UC-280S-19160	9	12	6-12	0.57	9000	46.6	63.4	Solder	0.078	0.433	0.944 x 1.200	2.55	2.17	1.63
232021CH	MD5-1885	10	12	6-18	0.74	9820	53.5	60.7	Solder	0.091	0.622	1.082 x 1.279	2.25	1.91	1.43
231950CH	UC-280S-20145	9	12	6-12	0.75	10000	55	64.0	Solder	0.078	0.433	0.944 x 1.200	2.55	2.17	1.63
232039CH	MD5-2070	10	12	6-12	1.20	12150	62.2	54.1	Solder	0.091	0.622	1.082 x 1.279	2.25	1.91	1.43
232127CH	MD5-2554AS-AA	2	12	6-12	1.70	17000	72.9	62.4	Quick Connect	0.091	0.512	1.083 x 1.279	4.29	3.65	2.73
232119CH	MD5-2450AS-AA	2	12	6-12	2.00	17200	77.5	55.9	Quick Connect	0.091	0.512	1.083 x 1.279	4.29	3.65	2.73
232047CH	MD5-2445	10	12	6-12	2.05	19850	79.7	66.0	Solder	0.091	0.622	1.082 x 1.279	2.25	1.91	1.43
231941CH	UC-280S-12285	9	24	12-24	0.39	10300	54.4	62.4	Solder	0.078	0.433	0.944 x 1.200	2.99	2.54	1.91
232098CH	MD5-15120AS-AA	2	24	12-24	0.70	15100	66.7	61.5	Quick Connect	0.091	0.512	1.083 x 1.279	4.29	3.65	2.73
232101CH	MD5-1980AS-AA	2	24	12-24	1.43	22600	88.5	60.9	Solder	0.091	0.512	1.083 x 1.279	4.29	3.65	2.73

**JAMECO ReliaPro (Mabuchi-Type) EXCLUSIVE**

238465CH	RF-310TA-11400 (CCW)	11	2.5	1-6	0.06	2190	3.3	—	Solder	0.078	0.369	0.962 x 0.712	\$5.35	\$4.55	\$3.41
238457CH	RF-300PA-11400 (CW)	12	3	1-3	0.07	2400	4.3	56.4	Wires	0.078	0.415	0.960 x 0.504	4.35	3.70	2.77
238511CH	RF-500TB-12560	13	6	1.5-12	0.08	2180	11.6	50.6	Solder	0.078	0.385	1.259 x 0.767	4.49	3.82	2.86
238431CH	EG-530AD-6B (CCW)	14	6	4.2-7.5	0.13	2400	8	—	Solder	0.078	0.307	1.377 x 0.984	5.39	4.58	3.44
238422CH	EG-530AD-6F (CW)	14	6	4.2-7.5	0.13	2400	8	—	Solder	0.078	0.307	1.377 x 0.984	5.39	4.58	3.44
238449CH	EG-530AD-9B (CCW)	14	9	6-11	0.09	2400	8	—	Solder	0.078	0.307	1.377 x 0.984	5.39	4.58	3.44
238490CH	EG-530YD-9B (CCW)	14	9	6.3-11.7	.13/.14	2000/4000	10	—	Solder	0.078	0.307	1.377 x 0.984	7.59	6.45	4.84
238502CH	EG-530KD-2B (CCW)	14	12	8.4-15.6	0.08	1600	10	—	Solder	0.078	0.307	1.377 x 0.984	5.99	5.09	3.82
238473CH	RF-370CA-15370	15	12	3-12	0.07	1970	16	61.4	Solder	0.078	0.346	0.960 x 1.213	5.55	4.72	3.54
238414CH	EG-530AD-2B (CW)	14	12	8.4-15	0.07	2400	60	—	Solder	0.078	0.307	1.377 x 0.953	4.49	3.82	2.86
238406CH	EG-530AD-2F (CCW)	14	12	8.4-15	0.07	2400	60	—	Solder	0.078	0.307	1.377 x 0.953	5.39	4.58	3.44
238481CH	EG-530YD-2B (CCW)	14	12	8.4-15	.13/.14	2000/4000	10	—	Solder	0.078	0.322	1.303 x 0.997	6.29	5.65	5.09

**JAMECO ReliaPro EXCLUSIVE**

237391CH	29SYT003	4	13.5	13.5	13	18000	509	—	Quick Connect	0.125	1.003	1.141 x 2.283	\$5.95	\$5.35	\$4.85
237382CH	29SYT002	4	24	24	0.93	2680	178	—	Wire	0.100	0.334	0.787 x 1.89	7.19	6.47	5.82
237403CH	40SYT002	16	26	26	1.5	300	815	—	Quick Connect	0.196	1.021	1.57 x 3.85	25.95	23.35	20.99
237374CH	29SYT001	4	112	112	0.93	2680	178	—	Wire	0.100	0.334	1.15 x 1.89	7.19	6.11	4.58

Volume buyers  
save more with  
100 piece orders!





# DC Gear Head Motors



MITSUMI

MABUCHI MOTOR

Nm

## 1.2VDC-24VDC Motors

Quantity SAVE

star motor

JOHNSON ELECTRIC



Part Number	Product Number	Manufacturer	Nominal Voltage (VDC)	Voltage Range (VDC)	@ Maximum Efficiency			Efficiency	Terminal Type	Shaft "Dia."	Shaft "Length"	Size (D" x L")	Pricing		
					Current (Amps)	Speed (RPM)	Torque (g-cm)						1	10	100
311976CH	20519-34442	Johnson Electric	1.2	—	0.363	4692	130.4	55	0.08"/solder	0.08	0.33	1.00 x 1.20	\$1.25	\$1.09	\$ .99
295849CH	RF-310T-11400	Mabuchi Motor	2.5	1-6	0.060	2190	3.3	—	0.06"/solder	0.08	0.89	0.96 x 0.71	1.49	1.34	1.21
154915CH	ST-130-12240 <sup>1</sup>	Star Motor	3	1.5-3	0.170	3588	7.4	55	0.09"/solder	0.08	0.37	0.79 x 1.13	1.09	.98	.86
154923CH	ST-130-22770 <sup>1</sup>	Star Motor	3	1.5-3	1.150	12500	10.3	40	0.09"/solder	0.08	0.37	0.79 x 1.13	.99	.84	.63
211246CH	RC-260RA-2670	Mabuchi Motor	4.5	3-4.5	1.430	15290	21.8	53	0.11"/solder	0.08	0.28	0.93 x 1.06	1.49	1.27	.95
267231CH	FRF-510-12620	Telco	6	3-12	0.030	2700	10.0	—	Wire w/ conn.	0.08	0.31	1.25 x 0.86	.99	.89	.79
177498CH	RC280RA-2485	Mabuchi Motor	7.2	3-14	1.180	14260	33.3	57	11"/solder	0.08	0.43	0.95 x 1.20	1.75	1.49	1.12
174692CH	21226-384221	Johnson Electric	12	9-14	0.015	3000	—	—	0.11"/solder	0.08	0.69	0.97 x 1.19	2.49	2.15	1.59
181112CH	M25N-2	Mitsumi	12	5-15	0.018	3000	18.0	—	11"/solder	0.08	0.26	0.97 x 1.30	2.29	2.05	1.85
206949CH	QJT360S14280	Nichibo	12	9-30	0.350	4930	44.5	52	0.11"/solder	0.09	0.45	1.09 x 1.30	1.69	1.45	1.09
153656CH	RS550PF	Mabuchi Motor <sup>2</sup>	12	6-15	1.400	6500	44.1	—	0.15"/solder	0.13	0.66	1.45 x 2.25	3.29	2.99	2.69
267291CH	SUN-555A-LMRK	Telco	24	—	0.150	4100	84	—	Wire w/ conn.	0.13	0.40	1.45 x 2.25	2.99	2.54	1.91

<sup>1</sup> 154915CH/154923CH: Use bushing P/N 162392CH, pg 256

<sup>2</sup> Manufacturer may vary

Blue Part No. = Limited Quantity Available



## 12VDC and 24VDC Reversible Gear Head Motors

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC



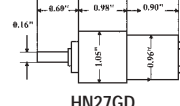
167038CH



159417CH



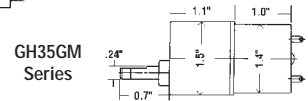
155011CH



HN27GD Series



GH30GM Series



GH35GM Series

Quantity SAVE

### HN27GD Series

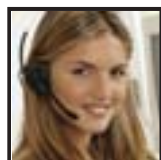
Part Number	Product Number	Rated Voltage (VDC)	Operating Range (VDC)	@ Maximum Efficiency			Gear Ratio	Gear Case Size Dia. x Length (in.)	Motor Size Dia. x Length (in.)	Shaft Size Dia. x Length (in.)	Pricing		
				Current (mA)	Speed (RPM)	Torque (g-cm)					1	10	50
167038CH	GH12-0953Y	12	4.5 - 24	90	9	1200	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	\$16.49	\$14.85	\$13.39
167046CH	GH12-1828Y	12	4.5 - 24	195	31	1300	90:1	1.1 x 1.3	1.1 x 0.8	.16 x .60	21.95	19.79	17.79

### GH30GM Series

170641CH	GH12-1828Y-10	12	6.0 - 24	105	8	3500	332:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	\$23.95	\$20.36	\$15.27
153437CH	GH12-1045Y	12	3.0 - 12	90	7	800	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	18.95	17.09	15.35
159417CH	GH12-1921Y	12	4.5 - 12	200	35	2000	132:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	21.95	19.79	17.79
162190CH	GH12-1324Y225	12	4.5 - 12	145	176	300	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	16.95	15.25	13.75

### GH35GM Series

155011CH	GH12-1926	12	4.5 - 12	250	2	6000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	\$21.95	\$19.79	\$17.79
155820CH	GH12-1830Y-P	12	4.5 - 12	220	4.5	4500	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	21.95	19.79	17.79
155838CH	GH12-1641T-L	12	3.0 - 12	250	15	3000	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	23.95	21.59	19.45
152910CH	GH12-1926Y	12	4.5 - 12	172	35	2370	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	21.95	19.75	17.75
151440CH	GH12-1632TI	12	4.5 - 12	275	57	2200	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	21.95	18.55	16.69
155854CH	GH12-1641T-F	12	3.0 - 12	250	71	1000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79	17.79
155862CH	GH12-1926Y-F	12	4.5 - 12	300	70	1000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79	17.79
161373CH	GH12-1345T	12	4.5 - 12	185	116	650	30:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	23.95	21.59	19.45
161381CH	GH12-1634T	12	4.5 - 12	293	145	850	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79	17.79
164785CH	GH12-1640Y	12	4.5 - 24	120	220	180	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	23.95	20.36	15.27
176049CH	GH12-1640Y00	24	12 - 24	340	1.8	6000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	21.95	18.66	15.52
176031CH	GH24-1640Y06	24	12 - 24	340	50	2000	90:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79	17.79
176022CH	GH24-1640Y19	24	12 - 24	340	148	1000	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79	17.79



Save Big!  
Special Values!

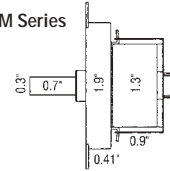
New Lower Prices = Orange,  
Sale Price Items = Yellow,  
Exceptional Quantity Discounts = Green

## 6VDC and 12VDC Reversible Gear Head Motors

### 32GM Series

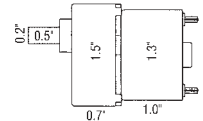
Part Number	Product Number	Rated Voltage (VDC)	@ Maximum Efficiency				Gear Case Size Dia. x Height (in.)	Motor Size Dia. x Height (in.)	Shaft Size Dia. x Length (in.)	Pricing		
			Current (mA)	Speed (RPM)	Torque (g-cm)	Gear Ratio				1	10	50
253403CH	32-009	6	64	2.7	2500	450:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	\$17.95	\$16.15	\$14.55
253391CH	32-008	6	60	3	2000	400:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253382CH	32-007	6	57	3.2	1800	377:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253374CH	32-006	6	51	4	1680	300:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253340CH	32-005	6	48	5	1600	240:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253323CH	32-004	6	44	6	1500	200:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253315CH	32-003	6	40	6.3	1350	190:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253307CH	32-002	6	38	8	1200	150:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253227CH	32-001	6	35	24	450	50:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55

### 32GM Series



253227CH

### 38GM Series



253446CH

### 38GM Series

253534CH	38-010	12	97	24	7500	250:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	\$18.95	\$17.09	\$15.35
253526CH	38-009	12	93.5	36	5400	167:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253518CH	38-008	12	87.5	40	4800	150:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253500CH	38-007	12	82	60	3200	100:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253497CH	38-006	12	80	66	2100	90:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253489CH	38-005	12	76	110	1300	56:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253471CH	38-004	12	74	120	1100	50:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253462CH	38-003	12	68	180	800	33:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253454CH	38-002	12	65	200	700	30:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253446CH	38-001	12	61.8	600	350	10:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35

## 1.3VDC and 3VDC Vibrating Motors

• Typical applications: cellular phones, pagers and toys



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

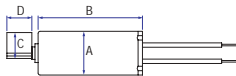


Fig. 3

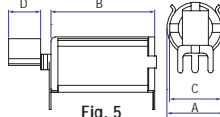


Fig. 5

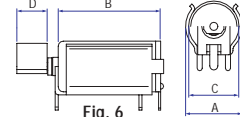


Fig. 6

Part No.	Mfr. Cross Ref. No.	Fig.	Operating Voltage (VDC @ mA)	Operating Range (VDC)	Rated RPM @ VDC	Lead Length (in.)	Motor Size (A x B) Dia. x L"	Shaft Size (C x D) Dia. x L"	Pricing		
									1	10	100
175062CH	OTL-7AL	1	1.3 @ 62	0.70 - 1.60	7000 @ 1.3	0.7	0.28 x 0.67	0.10 x 0.18	\$5.49	\$4.67	\$3.50
256356CH	72K642	3	1.3 @ 70	1.00 - 1.60	7500 @ 1.3	4.7	0.28 x 0.66	0.18 x 0.22	4.65	4.19	3.75
256372CH	72K631	3	1.3 @ 70	0.80 - 1.60	7500 @ 1.3	1.1	0.28 x 0.66	0.12 x 0.16	4.65	4.19	3.75
175396CH	OTL-4AL	2*	1.3 @ 65	0.70 - 1.60	8500 @ 1.3	0.8	0.16 x 0.55	0.15 x 0.23	6.49	5.52	4.14
256305CH	62K003	3	1.3 @ 80	0.85 - 1.60	8500 @ 1.3	1.0	0.23 x 0.39	0.10 x 0.10	3.29	2.99	2.69
256321CH	62K211	5	1.3 @ 80	0.80 - 1.60	8500 @ 1.3	PC Term	0.27 x 0.48	0.11 x 0.11	3.29	2.99	2.69
256268CH	52K019	6	1.3 @ 85	0.80 - 1.60	10000 @ 1.3	PC Term	0.20 x 0.40	0.10 x 0.07	5.29	4.79	4.29
256145CH	42K036	6	1.3 @ 80	0.85 - 1.60	11000 @ 1.3	PC Term	0.17 x 0.43	0.07 x 0.16	5.95	5.35	4.85
256049CH	42K041	3	1.3 @ 85	0.85 - 1.60	11000 @ 1.3	1.0	0.16 x 0.43	0.07 x 0.17	5.95	5.35	4.85
256241CH	52K011	3	1.3 @ 85	0.80 - 1.60	11000 @ 1.3	1.0	0.20 x 0.39	0.10 x 0.12	5.29	4.79	4.29
256364CH	72K692	3	3.0 @ 60	2.40 - 3.00	6500 @ 3.0	4.7	0.28 x 0.66	0.18 x 0.22	4.65	4.19	3.75
256381CH	72K681	3	3.0 @ 60	2.40 - 3.60	7500 @ 3.0	1.1	0.28 x 0.66	0.12 x 0.16	4.65	4.19	3.75
256313CH	62K053	3	3.0 @ 75	1.60 - 3.60	8500 @ 3.0	1.0	0.23 x 0.39	0.10 x 0.10	3.29	2.99	2.69
256330CH	62K261	5	3.0 @ 75	2.40 - 3.00	8500 @ 3.0	PC Term	0.27 x 0.48	0.11 x 0.11	3.29	2.99	2.69
256250CH	52K061	3	3.0 @ 75	2.40 - 3.00	10000 @ 3.0	1.0	0.20 x 0.39	0.10 x 0.12	5.29	4.79	4.29
256090CH	42K091	3	3.0 @ 80	2.40 - 3.60	11000 @ 3.0	1.0	0.16 x 0.43	0.07 x 0.17	5.95	5.35	4.85
256153CH	42K086	6	3.0 @ 70	1.30 - 3.60	12000 @ 3.0	PC Term	0.17 x 0.43	0.07 x 0.16	5.95	5.35	4.85

### Other Manufacturers — Limited Great Deals

190078CH	6CD-1201WL-00	4*	1.3 @ 80	—	7500 @ 1.3	1.1	0.24 x 0.47	0.10 x 0.22	\$6.55	\$5.57	\$4.18
185228CH	FM31E	7	3.0 @ 45	2.50 - 3.80	4500 @ 3.0	Solder pads	0.55 x 0.13	—	3.85	3.27	2.45

\*More details on page 128

# Vibrating Motors and AC Gear Motor



Color Code Legend			
New	Sale	Lower\$	QtySave

## 1.3VDC 8,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 8,500 @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3V @ 65mA (typical)
- Lead length: 0.75"
- Size: (motor) 0.16"Dia. x 0.55"L (shaft) 0.15"Dia. x 0.23"L

**Quantity SAVE**

Part No.	Description	1	10	100
175396CH	Vibrating motor .....	\$6.49	\$5.52	<b>\$4.14</b>

## 1.3VDC 7,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers and toys
- Rated RPM: 7,500 @ 1.3VDC
- Clock-wise rotation
- 1.1" lead wires
- Operating voltage: 1.3VDC @ 80mA
- Size: (motor) 0.47"L x 0.24"Dia. (shaft) 0.22"L x 0.10"Dia.

**Quantity SAVE**

Part No.	Description	1	10	100
190078CH	Vibrating motor .....	\$6.55	\$5.57	<b>\$4.18</b>

## 120VAC Gear Motor

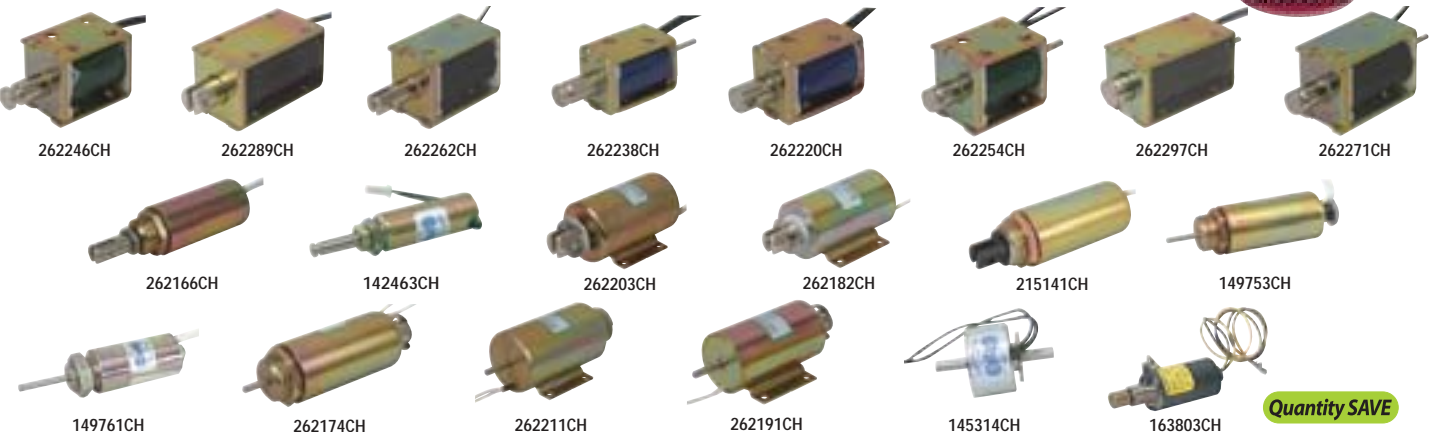
6.0 RPM - 2.9 Watt

- Operating voltage: 120VAC @ 60Hz
- Torque: >3.6 kg-cm
- Connector: 12" wires
- Screw down tabs for mounting (2.3" diagonal mounting hole space)
- Shaft diameter: 0.27" • Shaft length: 0.65"
- Overall size: 2.0" Dia. x 1.0" thick
- Typical applications: air conditioner turnleaf motor, microwave turnplate motor

Part No.	Mfr. Cross Ref. No.	1	10	100
213487CH	50TYZ .....	\$14.95	\$13.46	\$12.11

## Solenoids

### 12VDC and 24VDC Continuous Push, Pull and Push/Pull Solenoids



Part No.	Mfr. Cross Reference No.	Type	Voltage (VDC)	Coil Res. (±10%) (Ohms)	Power Consump. (W)	Holding Force (lbs. @ 20°C)	Stroke	Size L x Dia. (in.) ↑	Shaft Dia. (in.)	Wt. (lbs.)	Pricing		
											1	10	100
262246CH	SMO-0520L12STD	Open frame-pull	12	90	1.6	0.16	0.24	0.8 x 0.6 x 0.5	0.200	0.04	\$5.19	\$4.65	\$4.19
262289CH	SMO-1253L12AA	Open frame-pull	12	26	6.0	0.90	0.24	2.0 x 1.2 x 1.1	0.470	0.50	11.89	10.69	9.65
262262CH	SMO-0837L12STD	Open frame-pull	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.310	0.21	7.29	6.56	5.90
262238CH	SMO-0415S12AA	Open frame-push	12	180	0.8	0.01	0.12	0.6 x 0.4 x 0.3	0.040	0.01	5.95	5.35	4.79
262220CH	SMO-0415L12AA	Open frame-push	12	180	0.8	0.01	0.12	0.6 x 0.4 x 0.3	0.160	0.01	4.79	4.29	3.89
262254CH	SMO-0520S12STD	Open frame-push	12	90	1.6	0.16	0.24	0.8 x 0.6 x 0.5	0.06/0.20*	0.04	6.39	5.75	5.15
262297CH	SMO-1253S12AA	Open frame-push	12	26	6.0	0.90	0.24	2.0 x 1.2 x 1.1	0.10/0.47*	0.50	13.09	11.79	10.59
262271CH	SMO-0837S12STD	Open frame-push	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.08/0.31*	0.21	8.39	7.59	6.85
262166CH	SMT-1325L12STD	Tubular-pull	12	36	4.0	0.11	0.47	1.0 x 0.5	0.200	0.05	9.95	8.95	8.15
142463CH	SMT-1130L12A	Tubular-pull	12	36	4.0	0.63	0.40	1.6 x 0.4	0.150	0.04	6.95	6.26	5.63
262203CH	SMT-3864L24STD	Tubular-pull	24	34	17.0	1.32	1.18	2.5 x 1.5	0.620	1.10	29.95	26.95	24.29
262182CH	SMT-3257L24STD	Tubular-pull	24	44	13.0	3.30	0.70	2.3 x 1.3	0.500	0.65	19.59	17.69	15.89
215141CH	SMT-2251L24AA	Tubular-pull	24	60	10.0	4.00	1.00	3.0 x 1.0	0.440	0.40	10.95	9.31	<b>6.98</b>
149753CH	SMT-1325S12A	Tubular-push	12	36	4.0	0.75	0.47	1.9 x 0.5	0.063	0.05	9.95	8.96	7.92
149761CH	SMT-1632S12A	Tubular-push	12	21	7.0	1.50	0.24	2.5 x 0.6	0.098	0.10	10.95	9.86	8.87
262174CH	SMT-2551S24STD	Tubular-push	24	58	10.0	1.32	0.70	2.0 x 1.0	0.120	0.40	15.95	14.39	12.99
262211CH	SMT-3864S24STD	Tubular-push	24	34	17.0	1.32	1.18	2.5 x 1.5	0.160	1.10	31.39	28.19	25.39
262191CH	SMT-3257S24STD	Tubular-push	24	44	13.0	6.80	0.70	2.3 x 1.3	0.160	0.65	19.95	17.95	16.19
145314CH	SMT1913S12A	Tubular-push/pull	12	89	2.0	1.12	0.16	1.2 x 0.7	0.110	0.05	9.95	8.96	8.06

### Other Manufacturers — Limited Great Deals

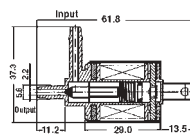
163803CH	A420-067074-01	Tubular-push	12	43	3.4	0.75	0.17	2.0 x 0.6	0.156	0.10	\$9.95	\$8.46	<b>\$6.34</b>
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↑ Open frame type dimensions: L" x W" x H"; \*Dual shaft

### 12VDC Solenoid Valve

- Operating voltage: 12VDC • Current: 350mA
- Operational temperature: -29°C to 85°C
- Air leakage: 1c.c./min. max. 4psi
- 0.250" quick disconnect terminals

Part No.	Description	Size	1	10	100
169834CH	Solenoid valve	1.2"L x 0.92" Dia. ....	\$6.95	\$6.25	\$5.59



### Motor Kits

See page 252 for our selection.





## Switchcraft®

### Button-Switch® & Cord-Switch®

#### 297300CH: Button-Switch®

- SPST-on (on)
- Color: black
- Mounting hole size: .469"
- Panel thickness: .297" max.
- Rating: 250mA, 30W maximum, AC, non-inductive load
- Compatible with P/N 297502CH



297300CH

#### 297502CH: Cord-Switch®

- Plastic insulation
- Copper alloy plated housing and switch bushing
- SPST-on (on) red pushbutton switch (same rating as P/N 297300CH)
- Maximum cable outside diameter: .375"



297502CH

**Lower \$\$\$**

Part No.	Product No.	Description	1	10	25
297300CH	913	Button-switch	\$2.55	\$2.36	\$2.18
297502CH	ED903	Cord-switch	10.49	8.55	8.43

## Free Technical Support

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### Pushbutton Binary Coded Decimal (BCD) Switch

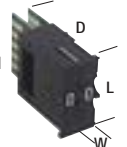
26788CH (2 switches shown)

### Thumbwheel Binary Coded Decimal (BCD) Switch

(2 switches shown) 26817CH

#### Pushbutton and Thumbwheel Switch Specifications:

- Contact resistance: 100mΩ max.
- 1/16" maximum panel thickness
- Gold plated BE-CU alloy contacts
- 0.15A @ 50VAC/28VDC
- Break before make
- Operating temperature: -40°C to +85°C
- Continuous load: 1 amp max.
- Front snap-tab mounting with end plates

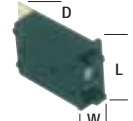


Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	Pricing			
					1	10	50	100
26788CH	MX72	10-position pushbutton	1.2 x 0.3 x 1.7	0.19"	\$5.69	\$5.15	\$4.65	\$4.15
26761CH	MXEP2	Mounting end plates for 26788	1.2 x 0.2 x 1.1	—	1.15	.99	.89	.79
26817CH	MX83	10-position thumbwheel	1.2 x 0.3 x 1.9	0.25"	4.49	3.95	3.55	3.19
26770CH	MXEP3	Mounting end plates for 26817	1.2 x 0.2 x 1.3	—	1.05	.88	.84	.77



### Mini Pushbutton BCD Switch

- Operating temperature: -10°C to +65°C
- 28VDC @ 10A
- Switches snap together
- Break before make
- Positive logic ("0" all open output)

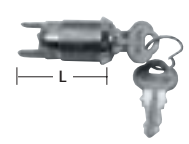


Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	1	10	100
136557CH	MX061	10-position straight	.59 x .30 x 1.0	0.12"	\$3.79	\$3.41	\$3.06



### SPST Round Keylock Switches

- Used in computer & other security systems
- Key removable from 2 positions
- Two keys
- Mounting hole = 0.75" except P/N 106649CH = 0.5"
- 196648CH: all keys are alike
- Includes: Mounting nut



106649CH

105831CH/196648CH

Part No.	Mfr. Cross Ref. No.	No. Flat, Dia.	Length	Terminal	Voltage/Current	Pricing			
						1	10	50	100
106649CH	KS4B	2, .21"	.55"	Barrel	125VAC/3A	\$3.59	\$3.29	\$2.89	\$2.49
105831CH	KS3B	2, .66"	1.48"	.25" quick connect	125VAC/6A	3.99	3.59	3.29	2.99
196648CH	3313E-M	2, .66"	1.48"	.25" quick connect	125VAC/6A	4.49	3.99	3.65	3.29



### Miniature Basic Switches

- 3 terminals: common; normally open; normally closed
- Size: 1.10"L x 0.40"W x 0.63"H

**OMRON**

**Honeywell**



187805CH



159581CH/187792CH  
203545CH



159572CH

**SALE**

Part No.	Product No.	Manufacturer	Actuator Type	Contact Form	Contact Rating	Resistance (Initial)	Service Life (Mech./Elec.)	Terminal Type	Pricing		
									1	25	50
159572CH	VS10N051C	Highly Electric	Hinge roller (0.60"L)	SPDT-NC	10A@125VAC, 10A@250VAC	15milliΩ (max.)	10M/100k	.183" quick connect	\$2.89	\$2.54	\$2.28
159581CH	VS10N021C2	Highly Electric	Hinge lever (1.05"L)	SPDT-NC	10A@125VAC, 10A@250VAC	15milliΩ (max.)	10M/100k	.183" quick connect	2.45	2.25	1.99
203545CH	V7-3E11D8-022	Honeywell	Hinge lever (1.07"L)	SPDT-NC	0.5A@125VAC, 10A@250VAC	—	10M/100k	.183" quick connect	1.59	1.45	1.35
187792CH	V-10G2-1C24K	Omron	Hinge lever (1.08"L)	SPDT-NC	0.1A@125VAC, 10A@250VAC	30milliΩ (max.)	50M/300k	.183" quick connect	2.45	2.25	1.99
187805CH	V-10G3-1C24K	Omron	Long hinge lever (2.01"L)	SPDT-NC	0.1A@125VAC, 10A@250VAC	30milliΩ (max.)	50M/300k	.183" quick connect	2.75	2.48	2.29



### Subminiature Basic Switches

- Economical, subminiature basic switch offers long service life
- Free from overtravel restrictions, permits easy setting
- Lead spacing: A = 0.35"; B = 0.29"
- Dimensions: 0.78"L x 0.25"W x 0.40"H

**OMRON**



187709CH



187733CH



159599CH

**SALE**

Part No.	Product No.	Manufacturer	Actuator Type	Contact Form	Contact Rating	Contact Force	Service Life (Mech./Elec.)	Terminal Type	Pricing		
									1	25	50
187709CH	SS-5GL	Omron	Hinge lever (0.6"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	\$1.59	\$1.45	\$1.29
187733CH	SS-5GL2	Omron	Hinge lever (0.6"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	1.25	1.09	.99
159599CH	SS0505A	Highly Electric	Hinge roller (0.7"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	45g	30M/200k	Solder	1.19	.99	.89

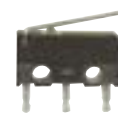
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### D2F Series Subminiature Snap-Action Switches

Super compact, for PCB mounting. Ideal for a wide variety of applications from household appliances and office equipment to audio and communications equipment.

- Long life span assured by high-precision dual spring reverse-action mechanism
- Flux penetration prevented by using an insert terminal and allowing a height difference at the case bottom
- Dimensions: 0.50"L x 0.23"W x 0.26"H
- Contact form: SPST

**NEW**



188867CH



188832CH

Part No.	Product No.	Actuator Type	Contact Type	Contact Force	Contact Rating (125VAC/30VDC)	1	25	50
188867CH	D2F-L	Hinge lever	General purpose	Standard (80g)	3A/2A	\$ .89	\$ .83	\$ .79
188832CH	D2F-01F	Pin plunger	Microvoltage/current	Low force (75g)	0.1A/0.1A	.45	.39	.36

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**JAMECO**  
 EXCLUSIVE

## Pushbutton Switches

Quantity SAVE

NEW



Fig. 1



Fig. 2

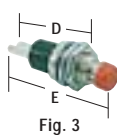


Fig. 3



Fig. 4



Fig. 5

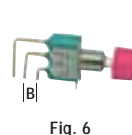


Fig. 6

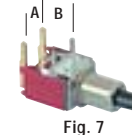


Fig. 7



Fig. 8

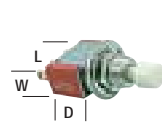


Fig. 9



Fig. 10

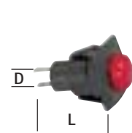


Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Mounting Hole Dia.	Type ( ) Momentary	Dimensions (L" x W" x D")	Lead Spacing		Contact Rating	Terminal Type	Button Color	Pricing				
							A"	B"				1	10	100	500	1000
315432CH	R13-23A-R	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Red	\$1.29	\$1.20	\$ .99	\$ .92	\$ .87
315483CH	R13-23B-R	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Red	1.29	1.19	.99	.92	.87
315441CH	R13-23A-B	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Black	1.29	1.19	.99	.92	.87
315491CH	R13-23B-B	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Black	1.29	1.19	.99	.92	.87
315459CH	R13-23A-BL	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Blue	1.29	1.19	.99	.92	.87
315504CH	R13-23B-BL	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Blue	1.29	1.19	.99	.92	.87
315467CH	R13-23A-W	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	White	1.29	1.19	.99	.92	.87
315512CH	R13-23B-W	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	White	1.29	1.19	.99	.92	.87
315475CH	R13-23A-Y	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Yellow	1.29	1.19	.99	.92	.87
315521CH	R13-23B-Y	1	2	31/64"	SPST off-(on)	1.13 (D) x 1.53 (E)	.20	—	3A @ 125VAC	Solder	Yellow	1.29	1.19	.99	.92	.87
315598CH	R13-40A-R	2	2	31/64"	SPST off-(on)	.98 (D) x 1.56 (E)	.20	—	3A @ 125VAC	Solder	Red	1.35	1.23	1.10	.99	.93
315619CH	R13-40B-R	2	2	31/64"	SPST off-(on)	.98 (D) x 1.56 (E)	.20	—	3A @ 125VAC	Solder	Red	1.59	1.45	1.33	1.21	1.13
315580CH	R13-40A-B	2	2	31/64"	SPST off-(on)	.98 (D) x 1.56 (E)	.20	—	3A @ 125VAC	Solder	Black	1.35	1.23	1.10	.99	.93
315601CH	R13-40B-B	2	2	31/64"	SPST off-(on)	.98 (D) x 1.56 (E)	.20	—	3A @ 125VAC	Solder	Black	1.59	1.45	1.33	1.21	1.13
26622CH	MS102	3	2	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	—	.14	3A @ 125VAC	Solder lugs	Red	.55	.50	.45	.35	.29
26649CH	MS103	3	2	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	—	.17	3A @ 125VAC	Solder lugs	Black	.55	.50	.45	.35	.29
315643CH	R13-81-R	4	2	13/64"	SPST off-(on)	.44 (D) x .78 (E)	.08	—	.5A @ 125VAC	PC terminal	Red	1.45	1.32	1.19	1.06	.94
315635CH	R13-81-B	4	2	13/64"	SPST off-(on)	.44 (D) x .78 (E)	.08	—	.5A @ 125VAC	PC terminal	Black	1.45	1.32	1.19	1.05	.94
315627CH	R13-52A-W	5	2	23/32"	SPST off-(on)	1.48 (D) x 1.69 (W)	.41	—	.75A @ 125VAC	M3 Screw	White	2.05	1.88	1.70	1.53	1.41
154879CH	PS11-123	6	3	1/4"	SPDT on-(on)	.50 x .27 x .37	—	.14	5A @ 125VAC	Solder, right angle	Red	1.99	1.89	1.79	1.69	1.59
71642CH	SWB210	7	2	7/32"	SPST off-(on)	.36 x .20 x .33	.20	.20	1A @ 120VAC	PC right angle	Black	2.19	1.99	1.78	1.60	1.39
202999CH	BB16	8	3	1/4"	SPST on-(on)	.39 x .35 x .35	.18	.10	0.1A @ 28VAC	Solder right angle	White	1.18	1.09	.90	.90	.90
121304CH	CK8121	9	3	1/4"	SPDT on-(on)	.52 x .27 x .38	—	.185	5A @ 125VAC	Solder lugs	White	3.59	3.25	2.95	2.65	2.39
28062CH	PB126	9	3	1/4"	SPDT on-(on)	.52 x .28 x .38	—	.185	5A @ 120VAC	Solder lugs	Red	3.69	3.35	2.99	2.69	2.45
355451CH	J1881	9	2*	3/8"	SPST on-(off) Alt†	.65 x .52 x .40	.25	—	2A @ 14VAC	5" Pigtail	White	1.19	1.09	.94	.83	.72
355469CH	J1882	9	2*	3/8"	SPST off-(on)	.65 x .52 x .40	.25	—	2A @ 14VAC	5" Pigtail	Red	1.09	.98	.88	.79	.70
174414CH	R13-510A	11	2	1/2"	SPST off-(on)	.67 (L) x .31 (D)	—	.167	3A @ 125VAC	Solder lugs	Red	.79	.78	.77	.74	.69
315900CH	R13-511A-R	12	2	1/2"	SPST off-(on)	1.00 (D)	.25	—	3A @ 125VAC	Solder	Red	3.09	2.82	2.54	2.29	2.06
315926CH	R13-511B-R	12	2	1/2"	SPST off-(on)	1.00 (D)	.25	—	3A @ 125VAC	Solder	Red	3.29	2.99	2.70	2.32	2.19
315897CH	R13-511A-B	12	2	1/2"	SPST off-(on)	1.00 (D)	.25	—	3A @ 125VAC	Solder	Black	3.09	2.82	2.54	2.29	2.06
315918CH	R13-511B-B	12	2	1/2"	SPST off-(on)	1.00 (D)	.25	—	3A @ 125VAC	Solder	Black	3.29	2.99	2.70	2.42	2.19
315660CH	R13-502A-R/B	13	2	1/2"	SPST off-(on)	1.02 (D)	.16	—	3A @ 125VAC	Solder	Red	1.85	1.67	1.51	1.36	1.24
315694CH	R13-502MA-R/B	13	2	1/2"	SPST off-(on)	1.02 (D)	.16	—	3A @ 125VAC	Solder	Red	2.29	2.10	1.89	1.70	1.56
315651CH	R13-502A-B/B	13	2	1/2"	SPST off-(on)	1.02 (D)	.16	—	3A @ 125VAC	Solder	Black	1.85	1.67	1.51	1.36	1.24
315686CH	R13-502MA-B/B	13	2	1/2"	SPST off-(on)	1.02 (D)	.16	—	3A @ 125VAC	Solder	Black	2.29	2.10	1.89	1.70	1.56
315766CH	R13-507A-R/B	14	2	41/64"	SPST off-(on)	.80 (L)	.34	—	6A @ 125VAC	Solder	Red	1.65	1.50	1.35	1.22	1.11
315782CH	R13-507MA-R	14	2	41/64"	SPST off-(on)	.80 (L)	.34	—	6A @ 125VAC	Solder	Red	2.99	2.76	2.48	2.23	2.05
315758CH	R13-507A-B/B	14	2	41/64"	SPST off-(on)	.80 (L)	.34	—	6A @ 125VAC	Solder	Black	1.65	1.50	1.35	1.22	1.11
315774CH	R13-507MA-B	14	2	41/64"	SPST off-(on)	.80 (L)	.34	—	6A @ 125VAC	Solder	Black	3.05	2.76	2.48	2.23	2.05

## Other Manufacturers — Limited Great Deals

154878CH	PS11-123	6	3	1/4"	SPDT on-(on)	.50 x .27 x .37	—	.14	5A @ 125VAC	Solder, right angle	Red	\$1.79	\$1.70	\$1.61	\$1.51	\$1.43
200774CH	TP12SHBAQE	7	3	7/32"	SPDT off-(on)	.32 x .20 x .33	.20	.10	1A @ 120VAC	PC right angle	Black	4.79	4.35	3.65	2.75	1.99
22200CH	J1881	10	2*	3/8"	SPST on-off, Alt†	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	White	1.09	.98	.83	.67	.50
22218CH	J1882	10	2*	3/8"	SPST off-(on)	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	Red	.99	.88	.79	.71	.62
307889CH	DS133	15	2	29/64"	SPST off-(on)	1.03 x .56 x .46	—	—	10A @ 125VAC	Solder Lugs	Black	4.15	3.75	3.49	3.14	2.83

† Alt = alternate action

\*Lead wires

† Metal frames, nickel-plated brass

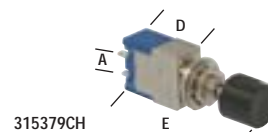
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## Miniature Pushbutton Switches

- 6A@125V or 3A@250V
- Epoxy sealed
- Material: Alkyd base (UL94V-0), stainless steel cover



Part No.	Mfr. Cross Ref. No.	Pins	Mounting Hole Dia.	Type ( ) Momentary	Dimensions (D" x E")	Lead Spacing		Contact Rating (A @ VAC)	Terminal Type	Button Color	Pricing				
						A"	B"				1	10	100	500	1000
315379CH	PA101A1-B/BL	2	1/4"	SPST on-off	1.2 x 1.7	.185	—	6 @ 125	Solder	Black	\$2.79	\$2.53	\$2.28	\$2.05	\$1.93
315387CH	PA101A1-R/BL	2	1/4"	SPST on-off	1.2 x 1.7	.185	—	6 @ 125	Solder	Red	2.79	2.53	2.28	2.05	1.93
315395CH	PA102A1-B/BL	2	1/4"	SPDT on-on	1.2 x 1.7	.185	—	6 @ 125	Solder	Black	2.89	2.63	2.37	2.14	1.99
315408CH	PA102A1-R/BL	2	1/4"	SPDT on-on	1.2 x 1.7	.185	—	6 @ 125	Solder	Red	2.89	2.63	2.37	2.14	1.99



## Pushbutton Switches

- Contact rating: 3A @ 125VAC • 2-pin • Lead type: solder terminal
- 164566CH / 164638CH: Contact rating: .5A @ 125VAC
- 164582CH / 164671CH: Contact rating: 1A @ 125VAC
- 106112CH: Contact rating: 3A @ 110VAC

### Miniature Soft Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing			
								1	10	100	500
164494CH	DS450R	1	SPST off-on	1.2"L x .59"Dia.	.175"	.387"	Red	\$2.09	\$2.05	\$1.97	\$1.88
164486CH	DS463R	1	SPST off-(on)	1.2"L x .59"Dia.	.175"	.387"	Red	2.15	2.05	1.95	1.85
164523CH	DS466R	2	SPST off-(on)	1.2"L x .60"Sq.	.160"	.383"	Red	1.95	1.87	1.81	1.74
196921CH	196921I	2	SPST off-on	1.6"L x 1.6"Sq.	.189"	.450"	Red	1.69	1.52	1.37	1.15
164558CH	DS471R	3	SPST off-(on)	1.2"L x .75"Sq.	.160"	.387"	Red	1.95	1.87	1.81	1.74

### Standard Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing			
								1	10	100	500
164566CH	MS402R	4	SPST off-(on)	.73"L x .22"Dia.	.078"	.190"	Red	\$1.15	\$1.14	\$1.10	\$1.06
164582CH	DS016B	5	SPST off-(on)	.88"L x .46"Dia.	.220"	.354"	Black	1.59	1.54	1.48	1.42
164638CH	MS3120R	6	SPST off-(on)	1.1"L x .31"Dia.	.175"	.268"	Red	1.65	1.49	1.34	1.26
164671CH	NS801MOB	7	SPST off-(on)	1.1"L x .59"Dia.	.213"	.468"	Black	2.45	2.05	1.94	1.77
106112CH	DS412R*	8	SPST off-(on)	.63"L x .66"Dia.	.275"	.750"	Red	1.05	1.03	.99	.98

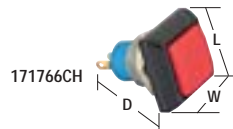
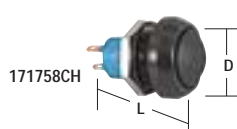
\* Solder lugs



## Pushbutton Switches

### IP and AV Series Pushbutton Switches

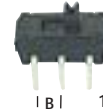
- Panel mount
- 171758CH / 171766CH: IP Series
- Initial contact resistance: 50mΩ max.
- Insulation resistance: 1GΩ min. @ 500VDC
- Mounting hole: 1/2"Dia.
- Dielectric strength: 1500Vrms min.
- Mechanical life: 1,000,000 cycles min.
- 171774CH: AV Series
- Initial contact resistance: 10mΩ max.
- Insulation resistance: 1000MΩ min.
- Mounting hole: 3/4"Dia.
- Dielectric strength: 1000Vrms min.



Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions			Lead Spacing	Contact Rating	Terminal Type	Pricing			
				L	W	D				1	10	100	250
171758CH	IPR3SAD2	2	SPST off-(on)	0.82"	—	0.46"	0.19"	0.2A @ 250VAC	Solder	\$10.39	\$9.35	\$8.45	\$7.49
171766CH	IPC3SAD6	2	SPST off-(on)	0.82"	0.69"	0.46"	0.19"	0.2A @ 250VAC	Solder	10.39	9.35	8.45	7.49
171774CH	AV191003C900	2	SPST off-(on)	1.20"	—	0.87"	0.37"	0.2A @ 48VDC	Screw	11.95	10.84	9.75	8.79

## Slide Switches

- Two mounting flanges
- Nylon actuator
- Top actuation
- Phenolic insulated



Part No.	Pins	Type	Description	Housing Material #	Dimensions			Lead Spacing	Contact Rating	Lead Length	Actuator Height	Pricing			
					L"	W"	D"					1	10	100	250
109170CH	3	SPDT on-on	PC mount	Plastic	.22	.45	.23	.12	0.5A @ 50VDC	.17"	.15"	\$0.31	\$0.26	\$0.23	\$0.19
161816CH	6	DPDT on-on†	PC mount	Plastic	.38	.14	.13	.11	0.1A @ 20VDC	.11"	.08"	.59	.49	.39	.29

### Other Manufacturers — Limited Great Deals

204142CH	3	SPDT on-on*	PC mount	Plastic	.77	.40	.37	—	.19	2.0A @ 28VDC	.19"	.17"	\$0.39	\$0.28	\$0.16	\$0.15	\$0.13
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† Plastic — flanges \* Side actuated # Plastic: 6/6 nylon; metal: steel zinc plated

# Jameco's Got The Docs

We offer technical documents for most of the products we carry. Find them easily on the product spec page @ [www.Jameco.com](http://www.Jameco.com)

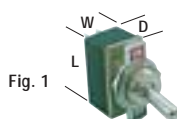
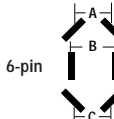
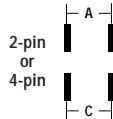
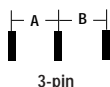




## Standard Toggle Switches

- Panel mount
- Mounting hole diameter: 1/2"
- Full-size round lever for standard and metal
- Full-size flat lever for plastic
- Medium duty
- Keyed plate indicates switch position

Includes: Mounting hardware and on/off plate



Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing			Contact Rating (A @ VAC)	Lead Type	Lever Type	Pricing				
						A"	B"	C"				1	10	100	500	1000
76241CH	SWM128	1	2	SPST on-off	1.00 x .56 x .52	.23	—	—	4 @ 125 & 2 @ 250	Solder lugs	Round	\$1.49	\$1.29	\$1.19	\$ .99	\$ .89
76232CH	SWM125	2	2	SPST on-off	1.00 x .53 x .51	—	—	—	6 @ 125 & 3 @ 250	6" lead wire	Round	1.75	1.59	1.45	1.29	1.15
317817CH	R13-25A1-05	3	2	SPST on-off	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Plastic	1.39	1.29	.85	.81	.80
317833CH	R13-25A2-05	3	2	SPST on-off	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Metal	1.99	1.75	1.39	1.25	1.19
317809CH	R13-25A1-01	3	2	SPST on-off	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	.250" quick connect	Plastic	1.39	1.29	.85	.81	.80
317825CH	R13-25A2-01	3	2	SPST on-off	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	.250" quick connect	Metal	1.99	1.75	1.38	1.25	1.19
318001CH	R13-28A-01	4	2	SPST on-off	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	.250" quick connect	Round	1.99	1.75	1.39	1.25	1.10
318019CH	R13-28A-05	4	2	SPST on-off	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	Solder	Round	1.99	1.45	1.39	1.25	1.10
318027CH	R13-28A-06	4	2	SPST on-off	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	M3 Screw	Round	2.25	1.99	1.55	1.39	1.25
317892CH	R13-25C1-05	3	3	SPDT on-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Plastic	2.39	2.15	1.69	1.52	1.46
317913CH	R13-25C2-05	3	3	SPDT on-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Metal	2.45	2.15	1.69	1.51	1.49
317884CH	R13-25C1-01	3	3	SPDT on-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	.250" quick connect	Plastic	2.85	2.55	2.00	1.79	1.72
317905CH	R13-25C2-01	3	3	SPDT on-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	.250" quick connect	Metal	2.45	2.15	1.69	1.51	1.49
318086CH	R13-28C-01	4	3	SPDT on-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	.250" quick connect	Round	2.45	2.15	1.69	1.52	1.39
318094CH	R13-28C-05	4	3	SPDT on-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	Solder	Round	2.45	2.15	1.69	1.52	1.39
318107CH	R13-28C-06	4	3	SPDT on-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	M3 Screw	Round	2.89	2.55	1.99	1.79	1.75
317930CH	R13-25D1-05	3	3	SPDT on-off-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Plastic	2.45	2.15	1.69	1.55	1.45
317956CH	R13-25D2-05	3	3	SPDT on-off-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Metal	2.45	2.15	1.69	1.55	1.45
318123CH	R13-28D-01	4	3	SPDT on-off-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	.250" quick connect	Round	2.45	2.15	1.69	1.52	1.47
318131CH	R13-28D-05	4	3	SPDT on-off-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	Solder	Round	2.45	2.15	1.69	1.52	1.47
318140CH	R13-28D-06	4	3	SPDT on-off-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	M3 Screw	Round	2.89	2.55	1.99	1.79	1.69
158060CH	JKN32	1	4	DPST on-off	1.00 x .56 x .52	.23	—	.23	4 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.05	.95	.85	.75
76260CH	SWM126	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	.40	5 @ 125 & 3 @ 250	Solder lugs	Round	1.75	1.59	1.45	1.29	1.15
158078CH	JKN3CC	1	6	DPDT on-on	1.19 x .76 x .73	.44	.59	.44	10 @ 125 & 6 @ 250	Screw lugs	Round	1.75	1.59	1.29	.99	.85
317850CH	R13-25B1-05	3	6	DPDT on-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Plastic	3.75	3.35	2.61	2.34	2.25
318043CH	R13-28B-01	4	6	DPDT on-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	.250" quick connect	Round	3.75	3.35	2.59	2.35	2.09
318051CH	R13-28B-05	4	6	DPDT on-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	Solder	Round	3.75	3.35	2.59	2.35	2.09
318060CH	R13-28B-06	4	6	DPDT on-on	1.33 x .75 x .75	.45	.61	.45	15 @ 125 & 10 @ 250	M3 Screw	Round	4.59	4.15	3.19	2.89	2.75
317972CH	R13-25E1-05	3	6	DPDT on-off-on	1.14 x .59 x .62	.38	.38	—	10 @ 125 & 6 @ 250	Solder	Plastic	3.75	3.35	2.61	2.34	2.25

## Other Manufacturers — Limited Great Deals

76259CH	SWM126	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	.40	5 @ 125 & 3 @ 250	Solder lugs	Round	\$1.59	\$1.45	\$1.29	\$1.15	\$1.05
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 products you'd like to see  
 in future catalogs.



Need an assortment  
 of switches?  
 Try our Switch Kit  
 on page 135.

## Plunging into Customer Satisfaction!

A long time ago in a test lab far, far away, I needed to take a prototype multi-drop I/O card designed by another engineer and interface it into my Supervisor Control and Data Acquisition (SCADA) system. Having spent the previous 4 months debugging, testing and finalizing the SCADA system design, I thought the I/O card integration should be a snap.

Yep, I gave myself two days to test the system with the I/O card. I could configure the card in 15 minutes (OK, I'd get a cup of coffee too!), plug it into the PC, and run my test suite. Then I'd have the next day and a half to debug any issues and get more coffee...

Then I got a taste of what it's like to be the customer. First test with JP01 open, then close JP43 and JP44 and test again. Next test with JP02 closed.

Once when I was pulling off a shorting block, it seemed to slip from my fingers and fall into a small unreachable crevice. Tests failed on numerous occasions because the plug wasn't properly aligned over the header pins. Time and more

time wasted for lack of a good remedy.

Nowadays, I refuse to go through that torment. First off, there are shorting plugs with pull-tabs or handles on the end to help you properly grip these tiny devices. On dense boards, you should even consider using plunger switches. These handy compact devices replicate the jumper's switching function without risking misalignment or loss of a shorting plug. And at just ten cents a piece in unit quantities, they add almost no incremental cost.

Now think about this from your customer's perspective... Did they lose time setting up your product because the jumpers weren't properly seated? Did they have to go out and find more shorting plugs because you didn't supply enough? Will that frustrated customer come back? Try the plunger switches and help them understand why your product stands out in the crowd! See page 135.



**Practical Practices**  
 Money Saving Tips for the Engineer

## Miniature Toggle Switches

A Jameco EXCLUSIVE

Quantity SAVE

**JAMECO** ValuePro

- Mounting hole diameter: 1/4"
- Includes: Mounting hardware



Fig. 1



Fig. 2

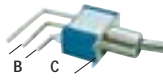


Fig. 3

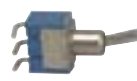


Fig. 4



Fig. 5



Fig. 6



Fig. 7

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type ( ) Momentary	Dimensions L" x W" x D"	Lead Spacing			Contact Rating (A @ VAC)	Lead Type	Lever Type	Pricing				
						A"	B"	C"				1	10	100	500	1000
76523CH	JMT113	1	2	SPST on-off	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	\$1.15	\$1.03	\$ .93	\$ .75	\$ .65
317227CH	TD101A1	1	2	SPST on-off	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Round	1.95	1.89	1.81	1.75	1.33
317286CH	TD101F1	2	2	SPST on-off	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	1.99	1.96	1.88	1.81	1.38
21936CH	JMT123	1	3	SPDT on-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.03	.93	.75	.65
317235CH	TD102A1	1	3	SPDT on-on	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Round	2.09	2.05	1.98	1.90	1.45
317294CH	TD102F1	2	3	SPDT on-on	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	2.19	2.15	2.07	1.99	1.52
21910CH	JMT121	1	3	SPDT on-off-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.35	1.25	1.09	.95	.85
317243CH	TD103A1	1	3	SPDT on-off-on	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Round	2.35	2.27	2.18	2.09	1.95
317307CH	TD103F1	2	3	SPDT on-off-on	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	2.39	2.34	2.25	2.16	1.65
22832CH	LFH123	2	3	SPDT on-on	.52 x .28 x .36	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.15	1.05	.95	.85	.75
75854CH	SWM132	1	3	SPDT on-on	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16	1.04	.94	.69
317260CH	1MS5T1B	1	3	SPDT on-off-(on)	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Round	2.35	2.27	2.18	2.09	1.95
317323CH	1MS5T6B	2	3	SPDT on-off-(on)	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	2.39	2.34	2.25	2.16	1.65
75889CH	SWM129	1	3	SPDT (on)-off-(on)	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.99	1.85	1.55	1.09	.95
317251CH	1MS4T1B	1	3	SPDT (on)-off-(on)	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Round	2.35	2.27	2.18	2.09	1.95
317315CH	1MS4T6B	2	3	SPDT (on)-off-(on)	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	2.45	2.39	2.31	2.21	1.70
26331CH	MPC123	1	3	SPDT on-on	.52 x .32 x .37	—	.185	—	6 @ 125 & 3 @ 250	PC straight	Round	1.39	1.25	1.12	.95	.78
26315CH	MPC121	1	3	SPDT on-off-on	.52 x .32 x .37	—	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.29	1.15	1.05	.95	.75
71597CH	SWM148	3	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	5 @ 125 & 2 @ 250	PC right angle	Round	1.19	1.09	.91	.73	.55
75871CH	SWM145	4	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	6 @ 125 & 3 @ 250	PC right angle	Round	1.49	1.35	1.09	.86	.79
317278CH	1MS2T1B	1	3	SPDT on-(on)	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Round	2.09	2.05	1.98	1.90	1.45
317331CH	1MS2T6B	2	3	SPDT on-(on)	.51 x .28 x .36	—	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	2.19	2.15	2.07	1.99	1.52
317403CH	TD201A1	5	4	DPST on-off	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Round	4.19	3.62	2.99	2.76	2.64
317462CH	TD201F1	6	4	DPST on-off	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	5.49	4.74	3.94	3.62	3.46
22841CH	LFH221	6	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	3 @ 125 & 1 @ 250	Solder lugs	Flat	1.45	1.35	1.19	1.09	.95
21979CH	JMT223	5	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.49	1.29	1.15	.99	.59
22859CH	LFH223	6	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.29	1.19	1.05	.95	.85
75900CH	SWM133	5	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35	1.25	.99	.85
317411CH	TD202A1	5	6	DPDT on-on	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Round	4.19	3.62	2.99	2.76	2.64
317471CH	TD202F1	6	6	DPDT on-on	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	5.49	4.74	3.94	3.62	3.46
317454CH	1MD2T1B	5	6	DPDT on-(on)	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Round	7.89	7.16	6.72	6.24	5.97
317518CH	1MD2T6B	6	6	DPDT on-(on)	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	7.39	7.05	6.65	6.35	5.99
21952CH	JMT221	5	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16	1.04	.89	.75
317420CH	TD203A1	5	6	DPDT on-off-on	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Round	4.79	4.13	3.44	3.16	2.99
317489CH	TD203F1	6	6	DPDT on-off-on	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	5.99	5.17	4.31	3.95	3.78
317446CH	1MD5T1B	5	6	DPDT on-off-(on)	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Round	4.99	4.30	3.58	3.30	3.14
317500CH	1MD5T6B	6	6	DPDT on-off-(on)	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	7.39	7.05	6.39	5.99	5.89
75951CH	SWM130	5	6	DPDT (on)-off-(on)	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35	1.25	.99	.89
317438CH	1MD4T1B	5	6	DPDT (on)-off-(on)	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Round	4.79	4.30	3.58	3.30	3.14
317497CH	1MD4T6B	6	6	DPDT (on)-off-(on)	.51 x .47 x .36	.20	.185	—	10 @ 125 & 6 @ 250	Solder	Flat	5.99	5.17	4.30	3.95	3.78
26366CH	MPC223	5	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.49	1.35	1.25	.99	.89
26358CH	MPC221	5	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.29	1.16	1.04	.89	.75

## Other Manufacturers — Limited Great Deals

105814CH	SWA208	5	6	DPDT on-(on)	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	\$1.59	\$1.45	\$1.29	\$1.15	\$ .89
202964CH	WI24	7	6	DPDT on-off-(on)	.50 x .50 x .46	.15	.15	.20	6 @ 125 & 3 @ 250	PC right angle	Round	1.59	.79	.68	.54	.41

## Subminiature Toggle Switches

**JAMECO** ValuePro

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction

Includes: Mounting hardware

Fig. 1



Fig. 2

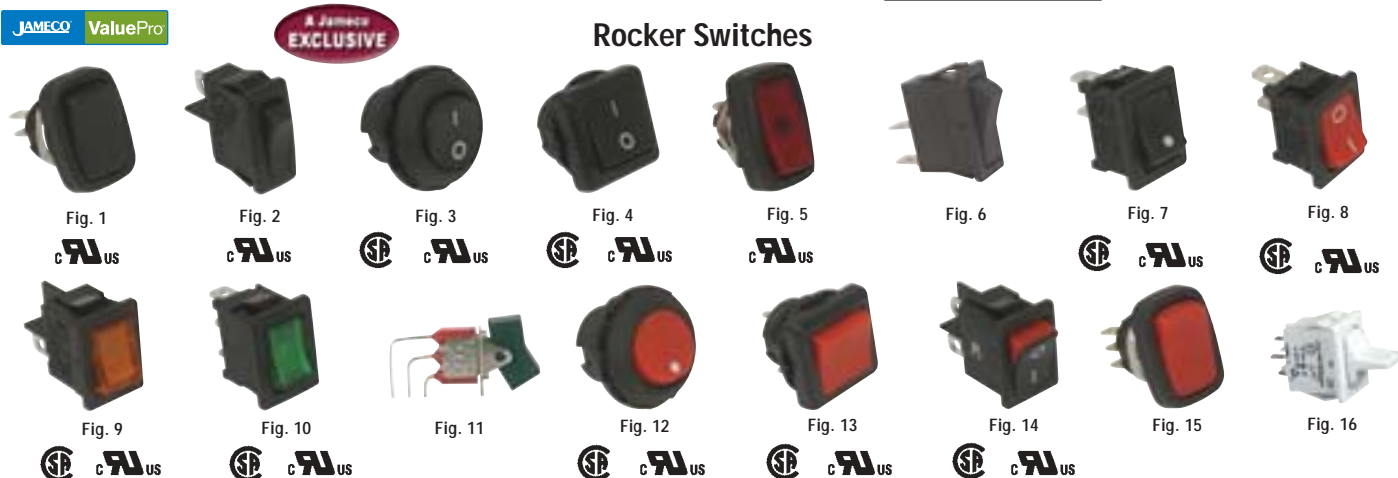


Fig. 3



Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing		Contact Rating	Lead Type	Lever Type	Pricing				
						A"	B"				1	10	100	500	1000
106067CH	SWP124	1	3	SPDT on-on	.25 x .33 x .40	.20	.10	30mA @ 5VDC	PC right angle	Round	\$1.99	\$1.83	\$1.59	\$1.44	\$1.32
72160CH	SW1501	2	2	SPST on-off	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.09	1.07	1.04	.99	.84
75969CH	SWM136	2	3	SPDT on-on	.33 x .21 x .33	.10	—	3A @ 125VAC	Solder lugs	Round	1.55	1.44	1.21	.86	.63
72557CH	SW1502	2	3	SPDT on-off-on	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.35	1.25	1.05	.85	.60
138907CH	SW1503	3	6	DPDT on-off-on	.36 x .37 x .33	.17	.10	3A @ 120VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
75977CH	SWM137	3	6	DPDT on-on	.33 x .37 x .33	.17	.10	1.5A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55

## Rocker Switches



Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type ( ) Momentary	Contact Rating (A @ VAC)	Mounting Hole	Mounting Type	Terminal Type	Rocker Color	Rocker Type	Lead Space		Dimensions (L"xW"xD")	Pricing		
											A"	B"		1	10	100
316321CH	R13-213A-B-03	1	2	SPST on-off	6 @ 125	.48" Dia.	Panel Mnt	.110" quick conn.	Black	Rectangle	0.13	—	.80 x .57 x .65	\$3.39	\$3.07	\$2.76
316339CH	R13-213A-R-03	1	2	SPST on-off	6 @ 125	.48" Dia.	Panel Mnt	.110" quick conn.	Red	Rectangle	0.13	—	.80 x .57 x .65	3.39	3.07	2.76
316451CH	R13-243A-02	2	2	SPST on-off	8 @ 125	.78"L x .28"W	Panel Mnt	.187" quick conn.	Black	Rectangle	0.35	—	.83 x .37 x .85	1.39	1.26	1.14
316460CH	R13-243E-02	2	2	SPST on-(off)	8 @ 125	.78"L x .28"W	Panel Mnt	.187" quick conn.	Black	Rectangle	0.35	—	.83 x .37 x .85	1.95	1.77	1.59
316478CH	R13-243F-02	2	2	SPST (on)-off	8 @ 125	.78"L x .28"W	Panel Mnt	.187" quick conn.	Black	Rectangle	0.35	—	.83 x .37 x .85	2.05	1.88	1.69
316232CH	R13-130A-01	3	2	SPST on-off	10 @ 125	.72" Dia.	Panel Mnt	Solder	Black (I-O)	Round	0.20	—	1.02 (L) x 1.00 (D)	1.19	1.05	.689
316267CH	R13-136A-B-05	4	2	SPST on-off	10 @ 125	.72" Dia.	Panel Mnt	Solder	Black (I-O)	Square	0.20	—	.91 x .91 x .73	1.75	1.58	1.41
316275CH	R13-136A-R-05	4	2	SPST on-off	10 @ 125	.72" Dia.	Panel Mnt	Solder	Red (I-O)	Square	0.20	—	.91 x .91 x .73	1.75	1.58	1.41
316380CH	R13-228A-05	5	2	SPST on-on	10 @ 125	.63" Dia.	Panel Mnt	Solder	Black (I-O)	Rectangle	0.17	—	1.13 x .75 x .67	2.35	2.12	1.91
196154CH	R30NSA	6	2	SPST on-off	15 @ 125	1.07"L x .43"W	Panel Mnt	Quick connect	Solid Black	Rectangle	0.45	—	1.07 x .42 x .77	1.75	1.59	1.44
316013CH	R13-66A-B-02	7	2	SPST on-off	16 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Black top	Rectangle	0.31	—	.83 x .59 x .47	.99	.86	.56
316021CH	R13-66A-R-02	8	2	SPST on-off	16 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Red top	Rectangle	0.31	—	.83 x .59 x .47	.99	.86	.56
316128CH	R13-73B-R-02	9	3	SPST on-off	10 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Red Illum.	Rectangle	0.35	0.35	.83 x .59 x .87	1.49	1.35	1.22
316136CH	R13-73B-Y-02	9	3	SPST on-off	10 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Yellow Illum.	Rectangle	0.35	0.35	.83 x .59 x .87	1.49	1.35	1.22
316144CH	R13-73B-G-02	9	3	SPST on-off	10 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Green Illum.	Rectangle	0.35	0.35	.83 x .59 x .87	1.65	1.50	1.35
316398CH	R13-228B-R-05	5	3	SPST on-off	10 @ 125	.63" Dia.	Panel Mnt	Solder	Red Illum.	Rectangle	0.17	—	1.13 x .75 x .67	3.05	2.76	2.48
316401CH	R13-228B-G-05	5	3	SPST on-off	10 @ 125	.63" Dia.	Panel Mnt	Solder	Green Illum.	Rectangle	0.17	—	1.13 x .75 x .67	3.05	2.76	2.48
316030CH	R13-66B-R-02	10	3	SPST on-off	16 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Red Illum.	Rectangle	0.31	0.31	.83 x .59 x .47	1.19	1.02	.67
316048CH	R13-66B-G-02	10	3	SPST on-off	16 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Green Illum.	Rectangle	0.31	0.31	.83 x .59 x .47	1.19	1.02	.67
140531CH	CK7101	11	3	SPDT on-on	5 @ 120	—	PC Mnt	PC right angle	Solid Black	Rectangle	0.15	—	.50 x .50 x .27	1.49	1.34	1.21
316363CH	R13-213C-03	1	3	SPDT on-on	6 @ 125	.48" Dia.	Panel Mnt	.110" quick conn.	Black	Rectangle	0.20	0.13	.80 x .57 x .65	4.15	3.77	3.39
316419CH	R13-228C-05	5	3	SPDT on-on	10 @ 125	.63" Dia.	Panel Mnt	Solder	Black	Rectangle	0.17	—	1.13 x .75 x .67	3.19	2.91	2.61
316259CH	R13-130C-01	12	3	SPDT on-on	10 @ 125	.72" Dia.	Panel Mnt	Solder	Black	Round	0.20	0.20	1.02 (L) x 1.00 (D)	1.35	1.24	.78
316304CH	R13-136C-B-05	13	3	SPDT on-on	10 @ 125	.72" Dia.	Panel Mnt	Solder	Black	Square	0.20	0.20	.91 x .91 x .73	2.05	1.88	1.69
316312CH	R13-136C-R-05	13	3	SPDT on-on	10 @ 125	.72" Dia.	Panel Mnt	Solder	Red	Square	0.20	0.20	.91 x .91 x .73	2.05	1.88	1.69
316056CH	R13-66C-B-02	10	3	SPDT on-on	16 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Solid Black	Rectangle	0.31	0.31	.83 x .59 x .47	1.19	.96	.60
316064CH	R13-66C-R-02	10	3	SPDT on-on	16 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Solid Red	Rectangle	0.31	0.31	.83 x .59 x .47	1.19	.96	.60
316072CH	R13-66D-02	10	3	SPDT on-off-on	16 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Black (I-O-I)	Rectangle	0.31	0.31	.83 x .59 x .47	1.19	1.02	.80
316371CH	R13-213F-03	1	4	DPST on-off	6 @ 125	.48" Dia.	Panel Mnt	.110" quick conn.	Black	Rectangle	0.20	0.13	.80 x .57 x .65	4.65	4.24	3.81
316110CH	R13-73A2-B-02	14	4	DPST on-off	10 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Solid Black (I-O)	Rectangle	0.20	0.34	.83 x .59 x .87	1.69	1.58	1.42
316152CH	R13-73C-R-02	14	4	DPST on-off	10 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Red Illum.	Rectangle	0.20	0.34	.83 x .59 x .87	2.05	1.88	1.69
316161CH	R13-73C-Y-02	14	4	DPST on-off	10 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Yellow Illum.	Rectangle	0.20	0.34	.83 x .59 x .87	2.05	1.88	1.69
316179CH	R13-73C-G-02	14	4	DPST on-off	10 @ 125	.78"L x .52"W	Panel Mnt	.187" quick conn.	Green Illum.	Rectangle	0.20	0.34	.83 x .59 x .87	2.25	2.04	1.84
316347CH	R13-213B-B-03	15	6	DPDT on-on	6 @ 125	.48" Dia.	Panel Mnt	.110" quick conn.	Black	Rectangle	0.20	0.13	.80 x .57 x .65	5.99	5.42	4.88
316355CH	R13-213B-R-03	15	6	DPDT on-on	6 @ 125	.48" Dia.	Panel Mnt	.110" quick conn.	Red	Rectangle	0.20	0.13	.80 x .57 x .65	5.99	5.42	4.88
316241CH	R13-130B-01	12	6	DPDT on-on	10 @ 125	.72" Dia.	Panel Mnt	Solder	Black	Round	0.20	0.20	1.02 (L) x 1.00 (D)	1.49	1.36	1.23
316283CH	R13-136B-B-05	13	6	DPDT on-on	10 @ 125	.72" Dia.	Panel Mnt	Solder	Black	Square	0.20	0.20	.91 x .91 x .73	2.45	2.20	1.99
316291CH	R13-136B-R-05	13	6	DPDT on-on	10 @ 125	.72" Dia.	Panel Mnt	Solder	Red	Square	0.20	0.20	.91 x .91 x .73	2.45	2.20	1.99

Blue Part No. = Limited Quantity Available

## Other Manufacturers — Limited Great Deals

140530CH	CK7101	—	3	SPDT on-on	5 @ 120	—	PC mnt. vert.	PC right angle	Black	Rectangle	0.15	—	.50 x .50 x .27	\$1.49	\$1.34	\$1.21
163344CH	CKD103J5W	16	3	SPDT on-off-on	5 @ 125	.77"L x .51"W	Panel Mnt.	Solder	White	Lever type	0.20	—	.67 x .47 x .59	<del>\$1.05</del> .28	.25	.23

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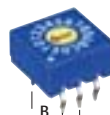


## Excell Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction • Terminals: PC pin leads • Life: 10,000 cycles min.
- Op force: 500g-cm max. • Max. switching load rating: 25mA @ 24VDC
- Material: 94V-0 grade, UL approved fire retardant plastic
- Lead spacing: A = 0.1"; B = 0.3"



139635CH



139651CH

Part No.	Product No.	Position	Adjust	Code Type	W" x D" x H"	1	10	50	100
139635CH	ERD110RS(DRD10)	10	top	BCD	.39 x .39 x .20	\$2.59	\$2.33	\$2.07	\$1.86
139651CH	ERD116RS	16	top	Hex	.39 x .20 x .39	2.75	2.49	2.22	1.99

## JAMECO ValuePro DIP Switches



206359CH



139002CH



38842CH



139011CH

- Switch contacts: SPST
- Switches are numbered
- 50VDC @ 100mA
- Molded construction
- Standard switches have raised lever
- LP switches are flush to casing • Pre-tinned leads



38800CH

Compatible Socket Chart, see page 111 for Sockets

Switch	Socket	Switch	Socket	Switch	Socket
109058CH	112192CH	38827CH	37161CH	101857CH	38113CH
38819CH	51570CH	38842CH	37372CH	38798CH	38607CH
139003CH	51570CH	139011CH	37372CH	38800CH	39378CH
109057CH	112192CH	139002CH	51570CH	101856CH	38113CH
38818CH	51570CH	38826CH	37161CH	38797CH	38607CH
206359CH	51570CH	38834CH	37161CH		

Part No.	Mfr. Cross Ref. No.	Pos.	Pricing			
			1	10	100	1000
109058CH	206-2	2	\$ .75	\$ .68	\$ .61	\$ .55
38819CH	206-4	4	.65	.55	.49	.45
139003CH	206-4LP	4	.79	.70	.55	.44
38827CH	206-6	6	.99	.89	.79	.72
38842CH	206-8	8	.89	.80	.72	.64
139011CH	206-8LP	8	.85	.76	.61	.47
101857CH	206-9	9	.85	.79	.69	.49
38798CH	206-10	10	.95	.86	.68	.51
38800CH	206-12	12	1.05	.99	.93	.56

Other Manufacturers — Limited Great Deals						
109057CH	206-2*	2	\$ .75	\$ .68	\$ .61	\$ .55
38818CH	206-4	4	.48	.44	.40	.36
206359CH	206-3* ⚡	3	.79	.65	.55	.413
139002CH	206-4LP*	4	.79	.70	.55	.44
38826CH	206-6*	6	.99	.89	.79	.72
38834CH	206-7*	7	.95	.86	.77	.62
101856CH	206-9*	9	.85	.79	.69	.49
38797CH	206-10*	10	.95	.86	.77	.64

\* Manufacturer may vary ⚡ Blue Part No. = Limited Quantity Available

## Switch Grab Bags



18235CH



135378CH

- 18235CH:** 50 pcs. assorted – toggle, pushbutton, rocker and slide switches
- 135378CH:** 1 lb. (approx. 135 pcs.) assorted – toggle, pushbutton, rocker and slide switches

Part No.	Cross Ref. No.	Wt. (lbs.)	1	10
18235CH	GB165	0.4	\$8.75	\$7.69
135378CH	GB165LB	1.0	18.95	16.95

## Replacement Switches for AT-Style Computer Cases

### PC Pushbutton Switches

- Alternate action double pole switch
- Contacts rated at 250VAC
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D



127044CH

174238CH

Quantity SAVE

SALE

Part No.	Description	Current	1	10	100
127044CH	PC push button	7.5A	\$1.95	\$1.66	\$1.24
174238CH	PC push button	8A	.94	.85	.78

### PC Rocker Switch

- For mini-tower cases
- Contacts rated at 250VAC
- UL/CSA approved • DPST
- Size: 0.9"L x 1.2"W x 1.4"D



Part No.	Description	Current	1	10	100
127028CH	PC rocker	10A	\$2.95	\$2.69	\$2.39

## OMRON D2F Series Subminiature PCB Plunger Switch

### Use in Place of Shorting Block

- SPST (on/off)
- Contact rating: 50mA @ 24VDC
- Non-removable plunger
- Size: 0.2"W x 0.1"D x 0.38"H
- Lead length: 0.1"L
- 10 piece minimum



Quantity SAVE

Part No.	Description	10	100	1000
172700CH	Plunger switch	\$ .10	\$ .085	\$ .064

## Magnetic Reed Switches

- NO (normally open)
- Contact form: SPST

**171871CH:** 500mA @ 100VDC

164081CH

• Size: 0.53"L x 0.1"Dia.

**164081CH:** 1A @ 250VAC; 1A @ 50VDC

• Size: 1.43"L x 0.2"Dia.

Part No.	Mfr. Cross Ref. No.	1	10	100	1000
171871CH	MKA141011015	\$ .79	\$ .64	\$ .46	\$ .41
164081CH	MRS1	.79	.63	.43	.39



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## Tactile Switches

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Fig. 1

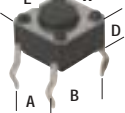


Fig. 2

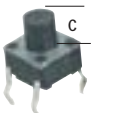


Fig. 3

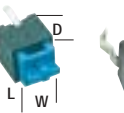


Fig. 4

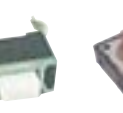


Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11

\* 10 piece minimum

- Bounce time: 10 msec.
- SPST momentary ON
- Contact resistance: 100mΩ
- Lead type: PC

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Dimensions (in.)				Lead Spacing		Contact Rating (mA @ VDC)	Button Color	Pricing			
				L	W	D	C	A*	B*			1	10	100	250
122972CH	DTS1212	1	4	.47	.47	.18	—	.20	.50	20 @ 15	Black	\$.26	\$.23	\$.19	\$.17
119010CH	KT11B1CM	2	8	.24	.24	.15	.30	.17	.25	20 @ 15	Black	.27	.24	.22	.20
149948CH	KT11P4CM	3	4	.24	.24	.15	.13	.17	.25	20 @ 15	Black	*.23	.21	.19	
115087CH	KIE22	4	2	.24	.24	.22	—	.25	.25	20 @ 15	Blue	*	.25	.223	.204
199727CH	EVQ11A04M	7	2	.24	.24	.14	.30	.20	—	20 @ 15	White	.30	.221	.196	.187
200362CH	EVQPB04K†	8	5	.24	.24	.14	.30	.17	.26	20 @ 15	Black	.29	.26	.23	.20
137189CH	PBS103	1	4	.47	.47	.17	—	.20	.50	50 @ 12	Black	.39	.35	.32	.19
153251CH	SDT620K	2	4	.24	.24	.15	.06	.17	.25	50 @ 12	Black	.29	.25	.20	.18
155248CH	KRS-3550-BK	5	2	.24	.14	.15	—	—	.27	50 @ 12	Black	.22	.20	.16	.15
155379CH	KRS-1273B♦	6	4	.47	.47	.14	.14	.17	.53	50 @ 12	Brown	.39	.35	.31	.26

### ♦ Tactile Switch Caps

10 piece minimum

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Size (in.)	Material	For Use With	10	100	250
155389CH	KRS-CAP-A	10	Square	.47"L x .47"W x .16"H	Plastic	P/N 155379CH	\$.15	\$.11	\$.10
155408CH	KRS-CAP-B	11	Round	.50"Dia. x .25"H	Plastic	P/N 155379CH	.15	.13	.11

### Other Manufacturers — Limited Great Deals

Part No.	Mfr. Cross Ref. No.*	Fig.	Pins	Dimensions (in.)				Lead Spacing		Contact Rating (mA @ VDC)	Button Color	Pricing			
				L	W	D	C	A*	B*			1	10	100	250
199726CH	EVQ11A04M	7	2	.24	.24	.14	.30	.20	—	20 @ 15	White	\$.27	\$.199	\$.176	\$.168
200361CH	EVQPB04K†	8	5	.24	.24	.14	.30	.17	.26	20 @ 15	Black	<del>\$0.26</del>	.10	.094	.086
155256CH	KRS-3550-WH	5	2	.24	.14	.15	—	—	.27	50 @ 12	White	<del>\$0.35</del>	.14	.13	.12
206341CH	KPT1107A	5	2	.24	.14	.15	—	—	.25	50 @ 12	White	<del>\$0.52</del>	.21	.19	.17
202956CH	KSM06330	9	2	.24	.24	.15	.38	.11	.18	50 @ 24	Red	<del>\$0.35</del>	.15	.13	.12

\* Manufacturer may vary

† 200362CH/ 200361CH: with ground pin

**SALE**

## SP5T Rotary Switch

- Panel mount
- Fixed stop
- 1/8" screwdriver slotted shaft
- 0.06" solder terminals
- 36° angle of throw
- Single pole, 5-positions
- Contact resistance: 20mΩ max.
- Insulation resistance: 1,000MΩ minimum between mutually insulated parts
- Material: stainless steel shaft and detent contact springs; brass terminals (gold plated over nickel plate); zinc, cadmium plated bushing



Part No.	Product No.	Description	1	10	100
184727CH	50AB36-01-1-5-F♦	SP5T panel mount rotary switch	<del>\$1.05</del>	\$.33	\$.28

♦ Blue Part No. = Limited Quantity Available

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## Rotary Switches

Quantity SAVE

- Contact rating: 30VDC @ 0.3A
- Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ
- Lug size: 0.07"
- Mounting hole diameter: 3/8"
- Layers: 1
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565CH – plastic casing)
- Make before break
- Solder lugs
- Compatible with Jameco rotary knobs P/N 102787CH and 104176CH, pg 145
- Panel mount

101573CH

Includes: Washer and nut

Part No.	Mfr. Cross Ref. No.	Poles	Position	Shaft Size (L" x Dia.)	1	10	100
101531CH	RS0261	1	12	0.46 x 0.25	\$1.29	\$1.10	<del>\$.82</del>
101573CH	RS022	2	6	0.46 x 0.25	1.35	1.15	.90
101565CH	RS023	3	4	1.16 x 0.25	1.95	1.59	1.25
101557CH	RS024	4	3	0.46 x 0.25	1.09	.93	<del>.69</del>

JAMECO ValuePro

## 16-Button Numeric Keypad

A Jameco EXCLUSIVE

- 4 x 4 matrix keypad
- Contact rating: 24VDC @ 20mA
- Life test: 1,000,000 life cycles per key

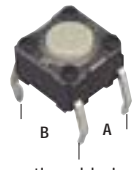
- 8-position solder pad
- Contact resistance: 200Ω max.
- Size: 3.0"L x 2.8"W x 0.6"H



Part No.	Description	1	10	100
169244CH	Numeric keypad	\$7.95	\$6.95	\$6.25

## B3F Series Miniature Tactile Key Switch

Miniature, low profile and easy mounting. Applications: audio, office & communications equipment, measuring instruments, TVs, VCRs, etc.



- Extended mechanical/electrical service life
- Flux-tight base structure allows automatic soldering of the key switch onto a PC board
- Lead spacing: A = 0.18"; B = 0.26"
- Operating force: 188787CH general purpose 100g P/N 162886CH and high-force 260g
- Dimensions: 162886CH 4.3 mm x 6.5 mm
- 188787CH 7.3mm x 6.5mm

Part No.	Type	1	25	50	100
162886CH	B3F-1000	\$.45	\$.40	\$.36	\$.33
188787CH	B3F-1050	.35	.29	.21	.17

## 12-Button Telephone Keypads

A Jameco EXCLUSIVE

- White plastic
- 8-pin .100" header
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Tactile type keypad
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H

153488CH

Part No.	Description	1	10	100
190561CH	Numeric keypad	\$8.75	\$7.45	\$5.59
153488CH	Alpha numeric keypad	9.49	8.55	7.69

## 16-Button Keypad Switch

- 1/2" button centers
- Flange mounted
- Top surface or sub-surface mounting
- Snap-dome contact provides positive feedback
- 4" x 4" grid
- Rating @ 24VDC: 10mA resistive
- Contact resistance: 10Ω maximum (compatible with MOS, TTL, and DTL)
- Voltage breakdown: 250VAC between mutually insulated parts
- Life expectancy: 3,000,000 operations per button



302025CH

Part No.	Product No.	1	10	100
302025CH	86B2-006	\$18.55	\$16.79	\$16.15

## 16-Button Indoor/Outdoor Keypads

- 9-pin .100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190CH header and P/N 100765CH pin, pg 112
- Size (housing): 4.7"W x 1.7"H x 0.4"T



196171CH



152063CH

\* Prepackaged: order in increments of 10 or 100

Part No.	Description	1	10	100
196171CH	2x8 matrix keypad	\$16.95	\$15.29	\$13.75
152063CH	4x4 matrix keypad	14.95	13.49	11.95
103190CH	Header housing (10-pin)	.42	.39	.36
100765CH	Header pin (10 per pack)	*	.11	.09



## Potter & Brumfield Relays



- UL/CSA approved
- Industry standard termination for quick installation
- Contact arrangements from SPDT to 4PDT
- Wide range of coil voltage for industrial and commercial applications



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8

Part No.	Product No.▲	Tyco No.	Figure	Contact Form	Coil Voltage	Coil Resistance (Ω)	Coil Current (mA)	Mating Socket*		Pricing			
								Standard	DIN Rail	1	10	25	50
282247CH	K10P-11A15-120	4-1393144-0	1	DPDT	120VAC	3,900	11	27E488/489	27E895	\$6.99	\$6.49	\$6.09	\$5.42
282255CH	K10P-11D15-12	5-1393144-5	1	DPDT	12VDC	160	75	27E488/489	27E895	6.99	6.49	6.09	5.42
282263CH	K10P-11D15-24	5-1393144-7	1	DPDT	24VDC	650	37	27E488/489	27E895	5.99	5.69	5.50	5.29
282280CH	KHAU-17A11-24	2-1393122-1	2	4PDT	24VAC	160	52	27E166	27E894	5.45	5.29	5.17	4.77
282271CH	KHAU-17A11-120	2-1393122-0	2	4PDT	120VAC	3,900	11	27E166	27E894	6.29	5.99	5.81	5.37
282301CH	KHAU-17D11-12	4-1393122-3	2	4PDT	12VDC	160	100	27E166	27E894	5.19	4.90	4.85	4.60
282319CH	KHAU-17D12-24	5-1393122-7	2	4PDT	24VDC	650	52	27E166	27E894	5.59	5.39	5.17	4.77
282327CH	KHU-17A11-120▲	2-1393123-4	3	4PDT	120VAC	3,900	11	27E166	27E894	23.49	21.65	19.29	16.91
300943CH	KRPA-5AG-24	9-1393104-9	4	SPDT	24VAC	85	84	27E122	27E891	24.55	23.26	21.84	20.06
282431CH	KRPA-5AG-120	9-1393104-8	4	SPDT	120VAC	2,250	17.5	27E122	27E891	14.99	14.21	13.42	12.64
300951CH	KRPA-5AY-120	1393105-1	4	SPDT	120VAC	2,250	17.5	27E122	27E891	24.55	23.26	21.84	20.06
300960CH	KRPA-5DG-12	1393105-3	4	SPDT	12VDC	120	100	27E122	27E891	22.29	21.14	19.85	18.24
282440CH	KRPA-5DG-24▲	1393105-4	4	SPDT	24VDC	472	51	27E122	27E891	14.99	14.21	13.42	12.64
300986CH	KRPA-11AG-6	2-1393104-8	4	DPDT	6VAC	6	335	27E122	27E891	14.65	14.24	13.81	12.75
282335CH	KRPA-11AG-12	2-1393104-4	4	DPDT	12VAC	24	168	27E122	27E891	15.09	14.32	13.81	12.75
282351CH	KRPA-11AG-24	1-1393105-2	4	DPDT	24VAC	85	84	27E122	27E891	9.99	9.49	9.21	8.49
282343CH	KRPA-11AG-120	2-1393104-5	4	DPDT	120VAC	2,250	17.5	27E122	27E891	10.05	9.79	9.56	8.80
300994CH	KRPA-11AG-240	2-1393104-7	4	DPDT	240VAC	9,110	8.75	27E122	27E891	14.49	14.09	13.67	12.62
301006CH	KRPA-11AN-12	3-1393104-1	4	DPDT	12VAC	24	168	27E122	27E891	12.95	12.14	11.32	10.25
301014CH	KRPA-11AN-24	3-1393104-3	4	DPDT	24VAC	85	84	27E122	27E891	15.99	15.58	14.63	13.45
282360CH	KRPA-11AN-120	3-1393104-2	4	DPDT	120VAC	2,250	17.5	27E122	27E891	11.45	10.89	10.48	9.58
301022CH	KRPA-11AN-240	3-1393104-4	4	DPDT	240VAC	9,110	8.75	27E122	27E891	18.69	17.70	16.63	15.28
301031CH	KRPA-11AY-24	3-1393104-7	4	DPDT	24VAC	85	84	27E122	27E891	15.09	14.99	14.15	12.99
301049CH	KRPA-11AY-120	3-1393104-6	4	DPDT	120VAC	2,250	17.5	27E122	27E891	16.99	16.13	15.14	13.91
301057CH	KRPA-11DG-6	4-1393104-7	4	DPDT	6VDC	22	188	27E122	27E891	15.89	15.07	14.15	13.31
282378CH	KRPA-11DG-12	4-1393104-3	4	DPDT	12VDC	120	100	27E122	27E891	9.95	9.49	9.21	8.49
282386CH	KRPA-11DG-24	4-1393104-5	4	DPDT	24VDC	472	51	27E122	27E891	9.69	9.21	8.96	8.34
301065CH	KRPA-11DG-48	4-1393104-6	4	DPDT	48VDC	1,800	26.6	27E122	27E891	16.29	16.13	15.13	13.45
301073CH	KRPA-11DG-110	4-1393104-2	4	DPDT	110VDC	10,000	11.5	27E122	27E891	12.19	11.54	10.97	9.93
301081CH	KRPA-11DG-125	4-1393104-4	4	DPDT	125VDC	10,000	11.5	27E122	27E891	15.85	15.31	14.78	13.64
301090CH	KRPA-11DN-12	5-1393104-0	4	DPDT	12VDC	120	100	27E122	27E891	15.75	15.58	14.62	12.99
282394CH	KRPA-11DN-24	5-1393104-1	4	DPDT	24VDC	472	51	27E122	27E891	10.39	9.89	9.53	8.80
301102CH	KRPA-11DN-110	4-1393104-9	4	DPDT	110VDC	10,000	11.5	27E122	27E891	16.05	15.58	14.63	13.45
301111CH	KRPA-11DY-24	5-1393104-7	4	DPDT	24VDC	472	51	27E122	27E891	14.65	14.24	13.81	12.75
301145CH	KRPA-14AN-24	7-1393104-4	4	3PDT	24VAC	85	84	27E123	27E892	18.15	17.18	16.12	15.17
282415CH	KRPA-14AN-120	7-1393104-3	4	3PDT	120VAC	2,250	17.5	27E123	27E892	12.19	11.58	11.14	10.29
301153CH	KRPA-14AN-240	7-1393104-5	4	3PDT	240VAC	9,110	8.75	27E123	27E892	19.99	19.29	17.19	15.28
301129CH	KRPA-14AG-24	6-1393104-7	4	3PDT	24VAC	85	84	27E123	27E892	11.09	10.64	10.17	9.75
282407CH	KRPA-14AG-120	6-1393104-5	4	3PDT	120VAC	2,250	17.5	27E123	27E892	11.79	11.20	10.82	9.98
301137CH	KRPA-14AG-240	6-1393104-8	4	3PDT	240VAC	9,110	8.75	27E123	27E892	19.29	18.76	17.61	16.19
301161CH	KRPA-14AY-24	7-1393104-8	4	3PDT	24VAC	85	84	27E123	27E892	17.55	16.64	15.63	14.36
301170CH	KRPA-14AY-120	7-1393104-7	4	3PDT	120VAC	2,250	8.75	27E123	27E892	18.25	17.70	16.16	14.36
301188CH	KRPA-14DG-12	8-1393104-2	4	3PDT	12VDC	120	100	27E123	27E892	12.99	12.66	12.28	11.40
282423CH	KRPA-14DG-24	8-1393104-4	4	3PDT	24VDC	472	51	27E123	27E892	11.29	10.73	10.34	9.54
301196CH	KRPA-14DG-48	8-1393104-5	4	3PDT	48VDC	1,800	26.6	27E123	27E892	18.99	17.97	16.88	15.50
301209CH	KRPA-14DG-110	8-1393104-1	4	3PDT	110VDC	10,000	11.5	27E123	27E892	18.99	18.19	17.44	16.10
301217CH	KRPA-14DN-24	9-1393104-0	4	3PDT	24VDC	472	51	27E123	27E892	18.39	17.44	16.38	15.05
282458CH	KUHP-11A51-120▲	6-1393114-9	5	DPDT	120VAC	1,700	24	—	—	10.25	9.99	9.77	8.93
282466CH	KUL-11A15S-120	2-1393115-6	6	DPDT	120VAC	3,700	30	27E121	27E893	32.29	31.23	27.84	26.19
282474CH	KUP-14A15-120	7-1393117-8	7	3PDT	120VAC	1,700	24	27E121	27E893	9.69	9.21	8.96	8.59
282482CH	KUP-14A35-120▲	8-1393117-7	7	3PDT	120VAC	1,700	24	27E121	27E893	11.65	11.07	10.26	9.59
282503CH	KUP-14D15-24	1-1393118-4	7	3PDT	24VDC	472	51	27E121	27E893	10.39	9.87	8.89	7.90
282491CH	KUP-14D15-110	1-1393118-2	7	3PDT	110VDC	10,000	11	27E121	27E893	13.09	12.44	11.63	9.78
282538CH	R10-E1X4-V185	1-1393766-4	8	4PDT	12VDC	185	60	27E163	27E461	14.55	13.82	12.86	12.39

\* For sockets see page 138





## Relay Sockets



282167CH



282183CH



282175CH



282191CH

### Relay Sockets for KRPA Series (Octal)

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282132CH	27E122	DPDT	8	Standard	\$3.59	\$3.49	\$3.45	\$3.16
282159CH	27E891	DPDT	8	DIN Rail	4.49	4.27	4.10	3.76
282141CH	27E123	3PDT	11	Standard	4.89	4.65	4.24	3.77
282167CH	27E892	3PDT	11	DIN Rail	7.15	6.79	6.19	5.50

### Relay Socket for KHAU Series

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282183CH	27E894	4PDT	14	DIN Rail	\$7.15	\$6.79	\$6.50	\$5.78

### Relay Sockets for KUP Series (11-blade square)

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282124CH	27E121	3PDT	11	Standard	\$6.29	\$5.99	\$5.47	\$5.00
282175CH	27E893	3PDT	11	DIN Rail	6.89	6.55	6.38	5.80

### Relay Socket for K10 Series (8-blade square)

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282191CH	27E895	DPDT	8	DIN Rail	\$5.05	\$4.80	\$4.38	\$3.90

## DIN Rail Mount Socket and Track Mounting System

For use with KHAU, KUP, and K10 series DIN relay sockets

**282204CH:** End clip insulator for preventing sockets from moving sideways or sliding off track

**282108CH:** Steel mounting clip with #6-32 screw (7/16")



Part No.	Product No.	Description	1	10	25	50
282204CH	40G432	Mounting plastic insulator	\$5.59	\$5.57	\$5.55	\$4.46
282108CH	24A071	Steel mounting clip	.49	.46	.40	.35
282116CH	24A110	36" mounting track	9.39	8.92	8.54	6.93

## S89R Series Bistable, Impulse Relay

- Contact rating: 15A • Nominal power: 9W@25°C
- Contact life: 10 million operations; 50,000 mechanical operation
- Initial breakdown voltage: 1,500Vrms, 60Hz
- Dust cover with octal plug-in base • Current: 75mA



Part No.	Product No.	Voltage	Resistance	1	10	25	50
282546CH	S89R11APP1-120	120VAC	260Ω	\$32.79	\$32.14	\$27.39	\$27.09

## VF4 Series 40A General Purpose Plug-In Relay

- Expected life: 10 million operations; 100,000 mechanical operations @ 40A • SPDT
- Dielectric strength: 500Vrms between contact and coil
- Initial operate time: 7ms typical with rated coil voltage applied
- 0.250" quick connected and printed circuit terminals

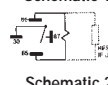


Part No.	Product No.	Voltage	Resistance	1	10	25	50
282554CH	VF4-45F11	12VDC	90Ω	\$3.19	\$3.03	\$2.78	\$2.48

## Potter & Brumfield Type Plastic Enclosed Construction Relays

### VF4 Type

- Dielectric strength: 500VDC (between contact & coil)
- Operating temperature: -35°C to +85°C
- Contact current: 40A • Terminal type: quick connect
- Coil voltage: 12VDC except P/N 171521CH (5VDC)
- Normally open (NO), normally closed (NC)
- Dimensions: 1.1"L x 1.1"W x 1.0"H



171432CH (Fig. 1)



171441CH (Fig. 2)



171459CH (Fig. 3)

Part No.	Mfr. Cross Ref. No.	P&B Cross Reference	Fig.	Contact Form	Coil Ohms	Contact Schematic	Contact Voltage	Pins	Pricing			
									1	10	50	100
171459CH	LD1A-12F	VF4-81F11S01	3	SPST-NO	78	2	14VDC	4	\$1.89	\$1.75	\$1.55	\$1.29
171441CH	961A-1A12D	VF4-11F11	2	SPST-NO	90	2	14VDC	4	2.35	2.20	2.14	2.09
171521CH	LD5F	VF4-45D11	1	SPDT	14	1	5VDC	5	1.69	1.35	1.05	.71
148582CH	LD12F	VF4-85F11	1	SPDT	78	1	12VDC	5	2.49	2.25	1.95	1.75
171432CH	961A-1C-12DM	VF4-81F11	1	SPDT	90	1	12VDC	5	2.99	2.69	2.25	1.65

## W58 Series Thermal Circuit Breakers

- Max. operating voltage: 50VDC; 250VAC 50/60Hz
- Interrupt capacity: 2,000A @ 50VDC; 1,000A @ 250VAC 50/60Hz
- Endurance cycling: >1,000 operations @ 200% of rating
- Dielectric strength: >1,500Vrms
- Push button to reset breaker



282597CH

Part No.	Product No.	Amp	Resistance	1	10	25	50
282562CH	W58-XB1A4A-10	10	0.014	\$2.99	\$2.95	\$2.89	\$2.69
282571CH	W58-XB1A4A-15	15	0.010	3.19	3.03	2.97	2.81
282589CH	W58-XB1A4A-20	20	0.006	3.19	3.03	2.97	2.81
282597CH	W58-XB1A4A-30	30	—	3.19	3.03	2.97	2.81

## CNS Series Multifunction Time Delay Relays

- DPDT • Rating: 10A @ 30VDC or 277VAC
- Electrical life: 100,000 operations at rated load
- Dielectric strength: 1,000Vrms, 60Hz between open contacts; 1,500Vrms, 60Hz between all other conductors



Power requirement: 10W @ 240VAC/VDC;  
5W @ 120VAC/VDC; 1W @ 25VAC/VDC

282212CH

Part No.	Product No.	Voltage	Timing Functions	Pins	1	10	25	50
282212CH	CNS-35-92	24-240VAC/VDC	4	8	\$62.89	\$59.75	\$55.71	\$52.87
282221CH	CNS-35-96	24-240VAC/VDC	8	11	71.65	68.07	66.42	66.14

## CNT Series Multifunction, Digital Time Delay Relay/Counter

- Digital adjustment via thumbwheel switches
- Maximum count: 1 to 999; 10 to 9,990; 100 to 99,900
- Maximum count rate: 100 counts per second
- Rating: 10A @ 30VDC or 277VAC resistive
- Electrical life: 100,000 operations min. at rated load
- 11-pin octal style plug • DPDT
- Dielectric strength: 1,000Vrms, 60Hz between open contacts; 1,500Vrms between all other contacts



Power requirement: 10W @ 240VAC/VDC; 5W @ 120VAC/VDC; 1W @ 24VAC/VDC

Part No.	Product No.	Voltage	1	10	25	50
282239CH	CNT-35-96	24-240VAC/VDC	\$82.95	\$81.99	\$81.04	\$78.50

## PRD Series Heavy Duty Open Relay

- SPDT • Expected life: 100,000 operations at rated load
- Contact rating: 25A @ 277VAC • Current: 85mA
- Nominal power: -9.8W @ 25°C • Resistance: 290Ω
- Auxiliary snap action switch rating: 5A @ 120VAC, 60Hz
- Initial breakdown voltage: 2,000Vrms min. between all elements and ground



Part No.	Product No.	Voltage	1	10	25	50
282520CH	PRD-5AY0-120	120VAC	\$19.79	\$18.24	\$16.25	\$14.19

## ODC Series Input/Output Module Relay

- Switch form: SPST-NO • Resistance: 250Ω
- Isolation: 4,000Vrms, 60Hz
- Capacitance: 8pF typical (input to out put)



Part No.	Product No.	Voltage	1	10	25	50
282511CH	ODC-5	5VDC/3-60VDC	\$9.25	\$8.99	\$8.85	\$8.06

## Relay Socket with Coil Diode

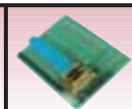
### VF4 Type

- For use with P/N 148582CH, left
- 12 AWG: 2 black & 1 blue wire; 18 AWG: 1 black & 1 red wire
- Contact voltage/current: 12V/20A
- Diode coil suppression • 7.5" wire



Part No.	Ref. No.	1	10	50	100
170624CH	RSD03	\$2.35	\$2.15	\$1.89	\$1.55

Universal Relay Card  
See page 252



## Small High-Current PC Mount Relays

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Mechanical life expectancy: 10 million operations
- Electrical life expectancy: 100,000 operations at rated loads
- Dielectric strength: 1500Vrms (between contact and coil)

104926CH: Open frame relay

129349CH: Immersion cleanable, plastic sealed case

144186CH: For use with universal relay card (P/N 128910CH, pg 252)



Fig. 1

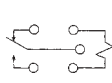


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



A



B



C



D



E



F



G



H



I



J



K

Part No.	Product No.	Manufacturer	Potter & Brumfield Cross Reference	Fig.	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	Pricing			
												1	10	50	100
145752CH	L90A-12W*	Rayex	T90S1D12-12	1A	SPST	12VDC	155	240VAC	30A	5	1.2 x 1.0 x .77	\$2.45	\$2.10	\$1.85	\$1.49
195864CH	RP838012	Schrack	—	5E	SPST	12VDC	270	250VAC	12A	4	1.1 x .48 x 1.0	1.35	1.09	.81	.57
134949CH	L90-5W	Rayex	T90S5D12-5	1A	SPDT	5VDC	27	240VAC/28VDC	20A	6	1.3 x 1.1 x .80	2.49	2.15	1.93	1.65
174449CH	LU-5	Rayex	T81H5D215	3B	SPDT	5VDC	125	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.79	1.66	1.55	1.49
187151CH	G5LE-1DC5	Omron	—	7G	SPDT	5VDC	63	120VAC/30VDC	10A/8A	5	.90 x .65 x .75	1.49	1.30	1.15	1.09
187240CH	G5V-1-DC5	Omron	—	8H	SPDT	5VDC	166.7	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	2.05	1.79	1.59	1.50
104926CH	733SPDT12VDC*	Song Chuan	T90N5D12-12	1D	SPDT	12VDC	155	240VAC/28VDC	20A/10A	6	1.2 x .90 x .63	1.85	1.69	1.49	1.27
129349CH	832-IC-S	Song Chuan	T90S5D12-12	1A	SPDT	12VDC	155	277VAC/28VDC	20A/10A	6	1.2 x 1.0 x .75	2.15	1.90	1.69	1.39
186669CH	G2R-14-DC12	Omron	—	9I	SPDT	12VDC	275	250VAC/30VDC	10A	5	1.2 x .51 x 1.0	2.99	2.85	2.69	2.55
172937CH	JS1-12V	Nais (Aromat)	T72M5D121-12	6F	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.09	.99	.89	.75
144186CH	JZC-22F	Velleman	VR15M121C	2B	SPDT	12VDC	337	120VAC/28VDC	15A	5	.80 x .64 x .80	3.79	3.39	3.05	2.75
174431CH	LEG-12F	Rayex	T7CS5D12	2B	SPDT	12VDC	400	120VAC/24VDC	15A	5	.76 x .62 x .60	1.49	1.29	1.19	1.09
184461CH	G5V-1-DC12	Omron	—	8H	SPDT	12VDC	960	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	2.25	1.79	1.58	1.42
187284CH	G6A-234PSTUSDC5	Omron	—	10J	DPDT	5VDC	125	125VAC/30VDC	.3A/1A	8	.80 x .33 x .40	3.95	3.63	3.33	3.07
174377CH	LM2-12D	Rayex	RKA5DZ12	4C	DPDT	12VDC	270	250VAC/30VDC	5A	8	1.2 x .48 x 1.0	2.49	2.25	1.95	1.75
187258CH	G5V-2-DC12	Omron	—	11K	DPDT	12VDC	288	125VAC/30VDC	.5A/2A	8	.81 x .40 x .45	2.49	2.28	2.02	1.82
200740CH	G5V-2-H1-24	Omron	—	11K	DPDT	24VDC	2800	125VAC/24VDC	.5A/1A	8	.81 x .40 x .45	2.59	2.35	1.89	1.39
215909CH	RKA-7DZ-12	P & B	—	12I	DPST-NC	12VDC	270	250VAC/24VDC	5A/5A	6	1.16 x .57 x 1.05	2.29	1.95	1.69	1.39

\* Manufacturer may vary

### General Purpose Relays

#### LB2 Series

- Contact rating: 240VAC/30VDC @ 12A
- Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations min. at rated load

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	50	100
172718CH	LB2-12DS	K10-11D15-12	12VDC	\$4.99	\$4.49	\$3.99	\$3.59
175564CH	LB2-24DS	K10-11D15-24	24VDC	5.99	5.49	4.93	4.49
175572CH	LB2-110AS	K10-11A15-120	110VAC	6.25	5.49	4.99	4.39

#### LB4 Series

- Insulation resistance: 1,500MΩ @ 500VDC
- Mechanical life: 10,000,000 operations
- Contact rating: 240VAC/30VDC @ 5A
- Electrical life: 100,000 operations min. at rated load

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	25	50
291506CH	LB4H-12DS	KHAU-17D12-12	12VDC	\$4.45	\$4.33	\$4.20	\$4.03
175601CH	LB4H-24DS	KHAU-17D12-24	24VDC	5.09	4.93	4.77	4.36
175610CH	LB4H-110AS	KHAU-17A12-120	110VAC	4.69	4.58	4.47	4.24

#### Relay Socket

- DIN rail snap socket for LB2 & LB4H relays

Part No.	Product No.	P & B Cross Ref.	Pins	1	10	50
175530CH	PTF-08A-A	27E895	8	\$5.95	\$5.39	\$4.85
175556CH	PYF-14A-A	27E894	14	3.95	3.49	2.95

#### KHAU Type Relay

- Insulation resistance: 1,500MΩ @ 500VDC
- Life: (mechanical) 10,000,000 operations; (electrical) 100,000 operations min. at rated load
- Contact rating: 220VAC/24VDC @ 5A

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	25	50
183011CH	GM4PDT12DF	KHAU-17D12-12	12VDC	\$6.95	\$6.38	\$6.04	\$4.99

### Beta Electric General Purpose Relays

#### Pin Type Terminals

- DPDT • 8-pin octal style plug
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient operating temp.: -10°C to +50°C
- Size: 1.4"L x 1.4"W x 2.7"H

Part No.	Product No.	NTE Cross Ref.	Coil Voltage	1	10	50
139766CH	BTA1-2C-12VDC	R02-11D10-12	12VDC	\$9.49	\$8.55	\$7.69
139740CH	BTA1-2C-120VAC	R02-11A10-120	120VAC	9.95	8.79	7.99

#### BTA1 Series Relays

Part No.	Product No.	NTE Cross Ref.	Coil Voltage	1	10	50
139766CH	BTA1-2C-12VDC	R02-11D10-12	12VDC	\$9.49	\$8.55	\$7.69
139740CH	BTA1-2C-120VAC	R02-11A10-120	120VAC	9.95	8.79	7.99

#### BTA1 Series Sockets

Part No.	Voltage	Current	Pins	Dimensions	1	10	50
141145CH	250VAC	20 amps	8	2.0"L x 1.6"W x 0.8"H	\$3.99	\$3.65	\$2.99
141153CH	250VAC	20 amps	11	2.0"L x 1.7"W x 1.2"H	5.19	4.67	4.11

#### BTA2 Series Quick Connect Blade Terminal

Flat terminals (0.187" x 0.020") for standard plug-in mounting; also accepts quick-connect receptacles or direct soldering.

- Contact rating: 120VAC/28VDC @ 13A; 240VAC @ 10A
- Ambient temperature operating: -30°C to +50°C
- Size: 1.5"L x 1.4"W x 2.2"H
- 3PDT • 11-pin

Part No.	Product No.	NTE Cross Ref.	Coil Voltage	1	10	50
139854CH	BTA2-3C-24VDC	R10-14D10-24	24VDC	\$8.69	\$8.63	\$8.39

#### BTA2 Series Socket

Part No.	Voltage	Current	Pins	Dimensions	1	10	50
141161CH	250VAC	20 amps	11	3.0"L x 1.4"W x 1.0"H	<del>\$3.95</del> \$3.15	\$2.84	\$2.58

## DC/AC and DC/DC Solid State Relays

- Screw terminal with hardware
- Photo isolation
- Metal mounting base
- Manufacturer may vary
- Zero crossing



176698CH  
(Fig. 1)



153058CH  
(Fig. 2)



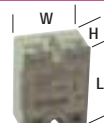
192815CH  
(Fig. 3)



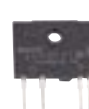
162341CH  
(Fig. 4)



176735CH  
(Fig. 5)



187004CH  
(Fig. 6)



164996CH  
(Fig. 7)



127790CH  
(Fig. 8)

Part No.	Product No.	Mfr.	Control Voltage	Type	Contact Style	Contact Voltage	Contact Current	Pins	Fig.	Terminal Type	Agency Approval	Size L" x W" x H"	Pricing			
													1	10	50	100
Solid State Relays DC/AC Type																
153058CH	KSD203AC2	COSMO	4-32VDC	DC/AC	SPST	240VAC	3A	4	2	Solder Lead	—	1.4 x 0.3 x 0.9	\$9.95	\$8.95	\$7.95	\$7.25
162341CH	ESR51024-010	Excel	3-32VDC	DC/AC	SPST	240VAC	10A	4	4	Screw Terminal	UL	1.7 x 1.1 x 2.3	15.95	14.39	12.95	11.65
162368CH	ESR51024-025	Excel	3-32VDC	DC/AC	SPST	240VAC	25A	4	4	Screw Terminal	UL	1.7 x 1.1 x 2.3	21.95	19.79	17.79	16.05
162405CH	ESR51024-040	Excel	3-32VDC	DC/AC	SPST	240VAC	40A	4	4	Screw Terminal	UL	1.7 x 1.1 x 2.3	22.99	20.69	18.69	16.79
105081CH	615-8500 ♣	Teledyne	3-32VDC	DC/AC	SPST	250VAC	10A	4	3	Screw Terminal	UL	1.7 x 1.1 x 2.3	15.99	14.39	12.99	11.69
192815CH	KSD240AC8	COSMO	4-32VDC	DC/AC	SPST	250VDC	40A	4	3	Screw Terminal	—	1.8 x 0.6 x 2.3	17.15	15.58	14.17	13.75
175214CH	KB20C02A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 1.5	5.95	5.69	5.32	5.05
127790CH	D2W202F	Crydom	3-32VDC	DC/AC	SPST	280VAC	2A	4	8	Solder Lead	UL/CSA	1.7 x 0.4 x 1.3	7.19	6.59	6.19	5.89
176698CH	KB20C06A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	6A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	9.99	8.99	7.99	7.19
176719CH	KD20C40AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	40A	4	5	Screw Terminal	—	1.7 x 0.9 x 2.3	19.99	17.99	16.19	14.59
176735CH	KD20C75AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	75A	4	5	Screw Terminal	—	1.7 x 0.9 x 2.3	39.95	35.99	32.39	29.15
204441CH	TD2420Q	Crydom	4-15VDC	DC/AC	4PST	280VAC	20A	13	—	Solder Lead	UL/CSA	2.3 x 1.8 x 0.9	56.95	51.25	43.59	32.69
186992CH	G3NA-210B-DC5-24	Omron	5-24VDC	DC/AC	—	240VAC	10A	4	6	Screw Terminal	UL/CSA	1.7 x 1.1 x 2.3	14.29	13.55	12.89	12.25
187004CH	G3NA-220B-DC5-24	Omron	5-24VDC	DC/AC	—	240VAC	20A	4	6	Screw Terminal	UL/CSA	1.7 x 1.1 x 2.3	19.95	17.95	15.95	13.95
164988CH	S101S02	Sharp	1.2VDC@20mA	DC/AC	—	125VAC	1.5A	4	7	Solder Lead	UL/CSA	0.9 x .16 x .63	3.95	3.49	2.95	2.25
164996CH	S202TA1	Sharp	1.2VDC@20mA	DC/AC	—	200VAC	2.0A	4	7	Solder Lead	UL/CSA	0.9 x .16 x .63	4.95	4.49	4.05	3.65
Solid State Relay DC/DC Type																
172591CH	KF0602D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	\$9.95	\$8.95	\$7.95	\$6.95
175222CH	KF0604D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	4A	4	1	Solder Lead	—	1.5 x 0.3 x 0.9	11.95	11.25	10.25	9.22
176647CH	KG1005D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	5A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	26.99	24.29	21.79	19.59
176655CH	KG1010D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	10A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	29.99	26.99	24.29	21.89

☛ Pull = Extra Savings

## DIP Relays

- Logic control levels
- Long life with reliable operation
- Moisture resistant
- Compatible with IC sockets
- Compact design/construction
- Excellent for PCB applications



106462CH



99901CH



206543CH

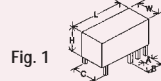


Fig. 1



Fig. 2

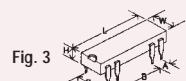
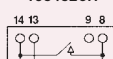


Fig. 3



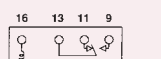
Schematic 1



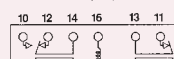
Schematic 2



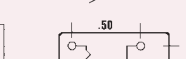
Schematic 3



Schematic 4



Schematic 5



Schematic 6

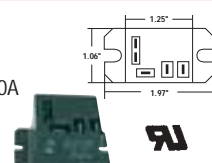
Part No.	Mfr. Cross Reference No.	Manufacturer	Contact Schem.	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Socket	Fig.	Size L x W x H (in.)	Leads A x B x C (in.)	Pricing			
														1	10	50	100
106462CH	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	\$2.15	\$1.81	\$1.52	\$1.25
138430CH	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.29	1.95	1.65	1.34
215896CH	OJE-SE-109LMF	OEG	6	SBT-NO	9VDC	400	250VAC/30VDC	3A/3A	4	—	1	.71 x .39 x .57	.50 x .60 x .30	2.29	1.95	1.69	1.39
106471CH	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	2.29	1.95	1.65	1.39
138448CH	2D1A1200	Excel Cell Elect.	2	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.25	1.95	1.75	1.49
138456CH	202A05	Excel Cell Elect.	3	DPST-NO	5VDC	140	100VDC	0.5A	8	37161	3	.77 x .30 x .28	.10 x .40 x .30	3.49	3.15	2.69	2.19
173913CH	AZ831-2C-5DSE	American Zettler	4	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401	1	.79 x .38 x .44	.18 x .28 x .29	2.35	2.15	1.69	1.25
139977CH	RSB5S	Shin Mei	4	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .40 x .30	2.49	2.25	1.95	1.75
99338CH	LM12C00	Clare	4	DPDT	6VDC	71	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.25	1.79	1.35
99311CH	DS2Y-S-DC12V*	Aromat (NAIS)	4	DPDT	12VDC	720	110VAC/30VDC	.3A/1A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.31	2.05	1.75
99901CH	LX200D00	Clare	4	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .30	.20 x .40 x .30	6.95	6.25	5.63	4.49
99320CH	LM12E00*	Clare	4	DPDT	24VDC	1110	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.95	2.69	2.39	2.15
136549CH	DS4E-M-DC5V*	Aromat	5	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	5.49	4.95	4.45	4.05
176313CH	DS4E-M-DC12V	Aromat	5	4PDT	12VDC	360	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	6.95	6.29	5.29	4.39
206543CH	DS4E-S-DC5V-1C-N137	Aromat	5	4PDT	5VDC	125	250VAC/220VDC	2A	14	112299	2	1.40 x .40 x .42	.20 x .30 x .30	3.79	3.45	3.15	2.85

\*Manufacturer may vary

## T9A Series Relay

### Low Cost PC Board or Panel Mount Only

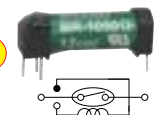
- Contact form: SPDT
- Contact current: 20A/10A
- Coil voltage: 12VDC
- 5-pin
- Contact volt.: 240VAC/28VDC
- Coil: 155Ω
- Terminal type: 0.1" disconnect (2); 0.25" disconnect (3)



Part No.	Cross Ref. No.	P & B Cross Ref.	Dimensions (LxWxH)	1	10	50	100
137357CH	953-IC-12DM	T9ASD52-12	2.0" x 1.6" x 1.8"	\$2.55	\$2.45	\$2.19	\$1.75

## Reed Type Relay

- Manufacturer: Bestar
- Contact form: SPST-NO
- Coil voltage: 12VDC
- Coil: 1050Ω
- Contact voltage: 120VAC/60VDC
- Contact current: 0.1A
- Dielectric strength: 1500VDC (between contact and coil)
- 4-pin
- Operating temperature: -30°C to +60°C
- Terminal type: PCB solder



Part No.	Mfr. Cross Ref. No.	Dimensions	1	10	50	100
111448CH	RC108T	1.0"L x .37"W x .38"H	\$1.65	\$1.98	\$1.89	\$1.81



## 24VDC Liquid Level Sensors

Combine the control box and sensor to activate a water valve. When sensor is triggered by a tank in either full or empty condition, it will trigger an output status change.

### 176250CH (Empty)

- Diameter: 1.0"
- Overall Length: 3.9"
- Travel Distance: 2.0"

### 176268CH (Full)

- Diameter: 1.1"
- Overall Length: 2.6"
- Travel Distance: .72"

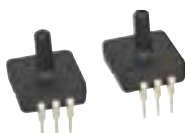
Part No.	Description	1	10	25
176250CH	Sensor empty type	\$9.95	\$7.39	\$6.70
176268CH	Sensor full type	\$11.45	6.79	6.17

**SALE**



## -1.1 to 2.5 PSI Pressure Sensor

- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure
- Volt-level output
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
- 1/8" diameter tubing is applicable
- Size: .55"L x .47"W x .20"H



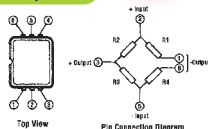
**Quantity SAVE**

Part No.	Product No.	1	10	100
196103CH	XFPN-025-KPGRNW1	\$24.95	\$21.25	\$15.95

## ServoFlo 0 to 7 PSI Pressure Sensor

- Max. load pressure: 10.5 PSI
- Input excitation: 1.5mA
- Span output: 60-140mV
- Bridge resistance: 5kΩ ±1kΩ
- Accuracy: ±5% full scale
- High output, accuracy and stability • Low noise
- 1/8" diameter tubing is applicable
- Size: 0.5"L x 0.5"W x 0.2"H

**Quantity SAVE**



Part No.	Product No.	1	10	100
163731CH	FPM07PG	\$11.95	\$10.19	\$7.65

Blue Part No. = Limited Quantity Available

## 0 to 1.45 PSI Pressure Sensor

- Typical full scale span @ 35mV: 0-10kPa (0-1.45 PSI)
- Maximum pressure (P<sub>MAX</sub>): 75kPa (10.875 PSI)
- Operating volt. (typical): 3VDC @ 6mA
- Applications: air movement control, level indicators, leak detection, robotics and industrial controls
- 1/8" diameter tubing applicable
- Size: 0.7"Dia. x 0.78"Thick (with nozzle)



Part No.	Product No.	1	10	100
218827CH	MPX10GS	\$8.99	\$7.99	\$7.19

For a Full Line  
of Pressure Sensors  
see page 43



## 12VDC Inductive Proximity Switch Sensors

Cylindrical and Square Styles

- Operating voltage range: 10-30VDC
- Nominal operating voltage: 12VDC
- Current consumption: 10mA max.
- Switching frequency: 1.5kHz
- Sensing target: inductive type – magnetic metal
- Sensing distance: ±10% (tin)
- Short circuit protected • LED status indicator
- Fast response • 6' long cable • Pre-tinned pigtail

155547CH  
(17mm)



167020CH (12mm)



248858CH (12mm)



155571CH (18mm)



Part No.	Product No.	Output Circuit	Effec. Dist. (Iron)	Standard Target (Iron) (mm)	Size (L" x W" x H")	Mounting Hole (in.)	Pricing		
							1	10	25
155547CH	S18-05N-1	NPN	0-4.0mm	17 x 17 x 1	1.4 x 1.4 x 0.7	0.112	\$9.95	\$8.95	\$7.95
167020CH	TS12-02N-1	NPN	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	20.65	18.61	16.75
248858CH	TS12-02P-1	PNP	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	19.99	17.99	15.99
155571CH	TS18-05N-1	NPN	0-4.0mm	18 x 18 x 1	1.6"L x 0.70"Dia.	0.70	24.95	22.46	20.21

## Ultrasonic Sensor Sets

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case

### 136653CH:

#### Transmit/Receive Set

- Capacitance: 2000pF ±30%
- Case size: 0.47"H x 0.62" Dia.
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1V pbar) R=3.9kΩ



136653CH

### 139491CH:

#### Transmit/Receive Set

- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V pbar) R=3.9kΩ
- Case size: 0.30"H x 0.43" Dia.



139491CH

Part No.	Mfr. Cross Ref. No.	1	10	50
136653CH	40TR16F	\$6.95	\$6.29	\$5.65
139491CH	40TR12B	6.95	6.29	5.65

## Latched Hall Effect Sensor

- SP (south pole): on
- NP (north pole): off
- Supply voltage: 20Vcc
- Supply current: 4mA
- Output current: 20mA
- Max. operating point: ≤ 130
- Max. release point (gauss): ≤ 130

Part No.	Mfr. Cross Ref. No.	1	10	100	1000
174043CH	HI-300	\$0.95	\$0.86	\$0.77	\$0.59



Electromech

## Vibration/Tilt Switch Sensor

Detects motion or vibration when the switch is mounted such that its main axis is near to the horizontal.

- Contact form: SPDT
- Maximum contact load: 24VDC/115VAC @ 0.5A
- Typical contact resistance: 1Ω (measured at 5VDC @ 0.01A with switch tilted 45° beyond operating point)
- Tilt: one plane only; ±10 degrees included angle
- Minimum operating temperature: -37°C

**SALE**

Part No.	Mfr. Cross Ref. No.	1	10	100
235926CH	Series 3004	\$1.49	\$0.99	\$0.91



## Feel the Pressure, and Don't!

I remember hearing about measurement and control applications in the late 70's. Back then, analog design was very prominent, and it wasn't unusual to develop an amplifier board for each analog input in a circuit.

Libraries of compensation code had not been extensively developed nor widely distributed, and so each sensor amplifier often had gain, offset and linearization implemented in discrete hardware.

Part of the assembly process included calibrating the board, which required additional manufacturing time. Later, the board required testing and sometimes recalibration to keep it in spec... more time.

Over time we have forgotten about the complications of the analog world.

Digital design is easy. Now compensation is performed in software. Libraries of routines abound on the internet, and closed-loop designs permit self-calibration. And, many devices like pressure and temperature sensors are developed in silicon (see page 43).

Thanks to all these changes, I don't feel the pressure others once felt when analog sensing was considered. Designing analog sensors is just about as mundane as designing digital. My designs are more effective in solving real world analog problems, and maintenance requirements are significantly diminished.



**Practical Practices**  
Money Saving Tips for the Engineer

## 1.2" (30mm) PCB Mountable Speaker

- Round frame design
- Mylar diaphragm
- Output SPL: 82 dB
- Pin spacing: 15mm
- Nominal input: 0.15W; max. input: 0.2W
- Ideal for PC board mounting
- Impedance: 8Ω
- Frequency range: 700 – 5000Hz



Part No.	Mfr. Cross Ref. No.	Description	Dimensions	1	10	100
135722CH	PCM415	Solder leads	1.2"Dia. x 0.5"D	\$2.15	\$1.79	\$1.59

## Speaker Terminals

Make a solid connection with these push-release speaker terminals. Color-coded red/black connections for positive and negative side of speakers, screwmount plates for easy installation.

- Requires 1.92" round cut-out for recessed mounting

NEW



Part No.	Description	Size	Price
318641CH	Round speaker terminals	2.95" diameter	\$ .43

## Round Ferrite Speakers

- 320135CH: with 2" lead wires
- Pre-tinned speaker lugs
- Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia. " x D")	Input		Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia. " x H")	Pricing		
			Nom (W)	Max (W)					1	10	100
320362CH	TRF-050F	2.0 x 0.7	0.25	0.5	8	86	320 – 4000	1.3 x 0.4	\$1.95	\$1.51	\$1.33
135589CH	FE200	2.0 x 0.7	0.2	0.4	8	83	420 – 5000	1.3 x 0.4	1.59	1.33	1.09
320135CH	C35128A	2.0 x 0.7	0.2	0.4	8	—	—	1.3 x 0.4	1.59	1.33	1.09
308267CH	GA0501M	2.0 x 0.8	0.25	0.5	8	85	500 – 7800	0.9 x 0.4	1.99	1.79	1.65
10840CH	FE201	2.2 x 0.7	0.2	0.4	8	88	400 – 4500	1.3 x 0.4	1.59	1.35	.99
177130CH	57RF07	2.2 x 0.8	0.5	0.9	45	88	500 – 8000	1.6 x 0.5	.54	.49	.43
320354CH	TR-066F	2.6 x 0.9	0.25	0.5	8	85	440 – 3500	1.3 x 0.4	1.45	1.24	1.14

NEW

For speaker wire, see page 88



135589CH Side



135589CH Back

## Square Ferrite Speakers

- Pre-tinned speaker lugs
- Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia. " x D")	Input		Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia. " x H")	Pricing		
			Nom (W)	Max (W)					1	10	100
135693CH	FEB200	2.0 x 0.7	0.2	0.3	8	82	500 – 6000	1.3 x 0.5	\$1.59	\$1.45	\$1.29
249463CH	66SF25	2.6 x 0.8	—	0.5	25	10	320 – 4000	1.3 x 0.5	2.49	2.09	1.59
31958CH	FEB216	2.6 x 0.8	0.2	0.4	16	85	330 – 8000	1.3 x 0.5	2.25	1.99	1.79
99995CH	FEB204	2.6 x 0.9	3.0	4.0	4	95	300 – 14000	1.8 x 0.5	2.49	2.25	1.99



99995CH Side



99995CH Back

## Flat-Magnet, Square Piezo Speakers

- Excellent for alarms or other voice uses
- Stainless steel diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia. " x D")	Input		Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia. " x H")	Pricing		
			Nom (W)	Max (W)					1	10	100
34024CH	AZ30S	1.2 x 0.2	0.4	0.8	8	70	1300 – 8000	1.2 x 0.1	\$1.69	\$1.52	\$1.35
76030CH	AZ40S	1.6 x 0.2	0.4	0.8	8	70	600 – 6000	1.6 x 0.1	1.95	1.75	1.49



34024CH Side



34024CH Back

## Alnico Speakers

- For computer case use
- Paper diaphragm
- Wide frequency response
- Pre-tinned solder lugs
- Large magnet
- Impedance: 8Ω

Part Number	Mfr. Cross Ref. No.	Fig.	Dimensions (Dia. " x D")	Input		Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia. " x H")	Pricing		
				Nom (W)	Max (W)				1	10	100
88410CH	A0200	1	2.0 x 0.8	0.2	0.4	87	430 – 4500	0.5 x 0.4	\$1.49	\$1.29	\$1.19
135765CH	RA2425	1	2.2 x 0.8	0.25	0.5	87	400 – 4000	0.5 x 0.4	1.59	1.35	.99
111587CH	B0102	2	1.7 x 0.6	0.1	0.3	83	500 – 5500	0.5 x 0.4	2.09	1.69	1.39
135811CH	A1527C02	3	1.6 x 2.8 x 1.2	2.0	5.0	82	450 – 20000	0.5 x 0.5	2.95	2.49	2.25

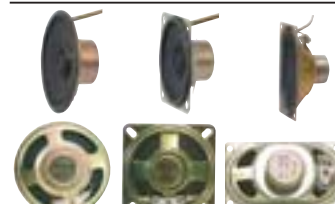


Fig. 1



Fig. 2



Fig. 3

## Micro Speakers

Part Number	Mfr. Cross Ref. No.	Fig.	Dimensions (Dia. " x D")	Input		Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia. " x H")	Pricing		
				Nom (W)	Max (W)				1	10	100
355514CH	GC0201M	1	0.79 x 0.17	0.1	0.2	78	500 – 20000	0.26 x 0.06	\$1.39	\$1.25	\$1.18
307871CH	GC0401M	1	1.57 x 0.67	0.2	0.3	80	600 – 8000	0.71 x 0.43	2.89	2.59	2.49
355522CH	GF0271M	1	1.06 x 0.30	0.1	0.2	82	500 – 20000	0.49 x 0.15	2.29	2.04	1.86
307854CH	GC0251KP*	2	1.0L x 0.55W	1.0	1.5	80	750 – 3500	0.43 x 0.08	1.85	1.75	1.65

\* Rectangular micro speaker



Fig. 1



Fig. 2

## Microphone Cartridges

NEW

### Omni-directional Electret Condenser Microphone Cartridges

#### Applications:

- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Modems for computers
- Used for recording, testing, and monitoring



160979CH



136573CH & 320178CH



320004CH



196488CH



140986CH

Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	Pricing			
												1	10	100	1000
160979CH	WM-64PKT	-44 ±3dB	>2.2kΩ	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	PC pin leads	.10" x .24"	\$ .72	\$ .65	\$ .52	\$ .35
136573CH	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.53	.48	.43	.39
320004CH	YILI	-38 ±3dB	>2.2kΩ	20-16,000	10V	4.5V	0.8mA	-3dB @ 3V	>40dB	Lead wires	.23" x .38"	.62	.476	.259	.245
320178CH	EM-99	-64 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.27" x .39"	1.49	1.25	.99	.81
196488CH	JL-061C	-58 OdB	2kΩ	20-20,000	10V	2.0V	0.04mA	-3dB @ 1.5V	>55dB	Solder pad	.10" x .24"	1.29	.99	.89	.79
140986CH	CRM919	-64 ±3dB	1kΩ ±30%	20-10,000	12V	3.0V	0.8mA	-3dB @ 3V	>40dB	Lead wires	.90" x .39"	1.49	1.14	1.05	.89

**JAMECO** ValuePro

## Buzzers and Sonic Transducers

**NEW**

**Quantity SAVE**

**A Jameco EXCLUSIVE**

**Magnetic Transducers** • Applied voltage: 1/2 duty, square wave

Part Number	Manufacture Cross Ref. No.	Fig.	Operating Volt. (Vp-p/mA)	Volt. Range (Vp-p)	Freq. (Hz)	Sound (dB)	Dimensions	Pricing			
								1	10	25	50
207917CH	DB105GFPN	1	1.5/30	1 - 2	2048	75	.22"H x .47"Dia.	\$1.49	\$1.35	\$1.19	<b>\$0.99</b>
138721CH	DB111A-PN	2	1.5/10	1 - 2	2048	80	.32"H x .46"Dia.	1.49	1.35	1.19	<b>.99</b>
335636CH	PB-12N23P-05	3	5/50	4.5 - 5.5	2300	85	10mm H x 12mm Dia	2.75	2.65	2.53	2.33
335644CH	PB-12N23P-12	3	12/50	9 - 15	2300	85	10mm H x 12mm Dia	2.69	2.59	2.50	2.18
138739CH	DBX05-PN	2	5/40	3 - 8	2400	85	.35"H x .46"Dia.	1.49	1.35	1.19	.99
106500CH	SBT-1205	2	5/40	3 - 8	2400	85	.40"H x .48"Dia.	1.49	1.35	1.25	1.09
207950CH	UDX05CPN	3	5/100	4 - 8	3100	85	.22"H x .35"Dia.	1.35	.99	.92	.83

### Magnetic Buzzers

207984CH	TDB01	4	1.5/30	1.25 - 2	2300	75	.47"H x .38"Dia.	<del>\$2.99</del> \$2.49	\$2.29	\$1.99	\$1.79
76064CH	TDB05-PN	4	5/30	4 - 7	2300	85	.35"H x .46"Dia.	2.99	2.79	2.69	2.59
207976CH	TDB12	4	12/30	8 - 15	2300	85	.47"H x .38"Dia.	2.49	2.39	2.29	2.19

### Piezo Buzzers

336428CH	PT-4175W	5	5/1.5	5 - 30	750	87	14mm H x 44mm Dia	\$1.79	\$1.69	\$1.59	\$1.44
336276CH	PT-1250W	6	3/1.5	2 - 5	1250	85	13mm H x 30mm Dia	1.55	1.49	1.37	1.24
337210CH	SC628D	7	6 - 28/5 - 18	6 - 28	1900	75	1.28"H x 1.69" Dia	10.45	9.72	9.09	8.54
336305CH	PT-2020P	8	5/1.5	5 - 30	2000	80	22mm W x 7.2mm D x 26.6mm H	1.29	1.25	1.19	1.07
336022CH	PK-27N26W	5	12/15	3 - 28	2500	90	10mm H x 30mm Dia	3.49	3.39	3.24	2.99
336356CH	PT-2725W	5	5/1.5	5 - 30	2500	90	10mm H x 30mm Dia	.85	.83	.79	.77
335898CH	PK-20A25P	9	12/25	3 - 24	2500	95	18mm H x 23mm Dia	3.75	3.59	3.46	3.18
335986CH	PK-27A25PS	3	12/10	3 - 24	2500	95	16mm H x 30mm Dia	4.19	3.99	3.88	3.57
335505CH	MAS800	10	12/50	9 - 12	2800	103	15.2mm H x 26mm Dia	4.95	4.62	4.19	3.84
335513CH	MAS800S	10	12/50	9 - 12	2800	103	15.2mm H x 26mm Dia	5.69	5.59	5.49	5.01
335530CH	MAS806	10	12/50	5 - 14	2800	103	15.2mm H x 26mm Dia	5.85	5.55	5.44	5.05
336663CH	SC105	7	1 - 5/3 - 16	1 - 5	2900	75	1.28"H x 1.69" Dia	10.95	10.04	9.01	8.57
337535CH	SNP428	11	4 - 28/3 - 16	4 - 28	2900	76	0.85"H x 1.64" Dia	9.35	8.63	8.00	7.48
336639CH	SBM616PU	12	6 - 16/3 - 12	6 - 16	2900	78	0.62"H x 1.69" Dia	14.99	14.39	13.69	12.83
336954CH	SC616CP	7	6 - 16/6 - 16	6 - 16	2900	78	1.84"H x 1.69" Dia	21.49	19.69	17.67	16.82
123537CH	11D3240	13*	24/20	4 - 28	2900	80	1.4"H x 1.7"Dia.	4.19	3.79	3.65	3.49
336786CH	SC110J	7	30 - 120/7 - 19	30 - 120	2900	80	2.41"H x 1.69" Dia	29.29	26.83	24.09	22.92
336840CH	SC110Q	7	30 - 120/6 - 22	30 - 120	2900	80	1.28"H x 1.69" Dia	14.99	13.65	12.56	11.64
337383CH	SC628P	7	6 - 28/4 - 16	6 - 28	2900	80	1.84"H x 1.69" Dia	15.69	14.31	13.17	12.23
337359CH	SC628N	7	6 - 28/4 - 16	6 - 28	2900	90	1.28"H x 1.69" Dia	11.99	10.99	9.86	9.39
32601CH	11S3240	13	24/15	1 - 28	2900	95	1.4"H x 1.7"Dia	4.95	4.45	4.29	4.09
335484CH	LSC616N	7	6 - 16/40 - 60	6 - 16	2900	95	0.39"H x 0.91"Dia	29.35	26.85	24.11	22.94
336807CH	SC110N	7	30 - 120/6 - 24	30 - 120	2900	95	1.84"H x 1.69" Dia	26.15	25.37	23.99	22.63
336815CH	SC110NJ	7	30 - 120/6 - 24	30 - 120	2900	95	1.84"H x 1.69" Dia	26.45	25.69	24.33	22.92
336989CH	SC616N	7	6 - 16/6 - 22	6 - 16	2900	95	1.28"H x 1.69" Dia	11.69	10.66	9.81	9.10
336997CH	SC616NJ	7	6 - 16/6 - 22	6 - 16	2900	95	1.28"H x 1.69" Dia	17.69	16.21	14.56	13.85
337017CH	SC616NP	7	6 - 16/6 - 22	6 - 16	2900	95	1.28"H x 1.69" Dia	17.69	16.21	14.56	13.85
335978CH	PK-21N30W	5	12/12	1.5 - 30	3000	80	9.5mm H x 24mm Dia	2.75	2.65	2.55	2.37
335951CH	PK-21A31P	3	12/18	3 - 24	3000	85	13.5mm H x 24mm Dia	3.89	3.69	3.46	2.49
76021CH	7S3240-LA	14	24/20	1.5 - 28	3200	95	1.0"H x 1.1"Dia	4.99	4.69	4.49	4.29
335556CH	MSR320	9	3 - 20/3 - 16	3 - 20	3400	80	0.39"H x 0.91"Dia	2.55	2.38	2.16	1.98
336049CH	PK-27N36W	5	12/15	3 - 28	3500	90	10mm H x 30mm Dia	3.49	3.39	3.24	2.99
335695CH	PF-20A35EW	14	12/10	3 - 28	3500	95	25mmH x 28mm Dia	5.09	4.89	4.77	4.59
335804CH	PF0-20A35EW	14	12/10	3 - 24	3500	95	25mmH x 28mm Dia	5.59	5.39	5.20	5.04
335919CH	PK-20A35EW	14	12/10	3 - 24	3500	95	25mmH x 28mm Dia	2.79	2.28	2.19	1.99
207992CH	SL15R3120LA	15	12/250	6 - 16	3500	105	2.3"L x 1.8"W x 1.6"H	6.95	6.29	5.99	5.75
336313CH	PT-2038FW	5	12/8	3 - 28	3800	85	4.5mm H x 24mm Dia	1.15	1.09	1.05	.95
335927CH	PK-20A38P	3	12/15	3 - 24	3800	95	18mm H x 23mm Dia	3.55	3.39	3.26	2.99
335564CH	MSR516N	3	5 - 16/3 - 14	5 - 16	3850	86	0.39"H x 0.91"Dia	3.99	3.79	3.43	3.15
138712CH	32S4120-PN	4	12/7	3 - 16	4000	80	0.30"H x .54"Dia	2.49	2.25	2.09	<b>1.95</b>
336284CH	PT-1540P	3	5/1.5	5 - 25	4000	85	9mm H x 17mm Dia	.99	.95	.89	.82
196357CH	AL-175	4	12/5.8	3 - 16	4000	86	0.30"H x .54"Dia	2.69	2.45	2.29	<b>2.09</b>
335855CH	PK-12N40P	3	12/10	3 - 15	4100	83	8mm H x 14mm Dia	3.29	3.07	3.05	2.69
336399CH	PT-2745W	5	5/1.5	5 - 30	4500	90	5mm H x 30mm Dia	1.05	.99	.92	.83

\* Dual tone

### Mechanical/Electromechanical Buzzers

24871CH	63S109LA	16	9/30	6 - 12	400	75	1.3"L x 0.7"W x 0.6"H	\$2.49	\$2.19	\$1.99	\$1.79
140695CH	63S1120-LA	16	12/25	9 - 15	400	75	1.3"L x 0.7"W x 0.6"H	1.99	1.79	1.69	1.59
105822CH	CLB27	17	9/220	—	500	80	1.3"H x 2.0"Dia	1.39	1.29	1.25	1.19

### Piezo Sirens

⚙ Blue Part No. = Limited Quantity Available

336188CH	PS-520	15	12/200	5 - 15	3000	105	40mm W x 57.5mm D x 44.5mm H	\$8.99	\$8.75	\$8.05	\$7.34
207888CH	18R3120 ⚙	18	12/120	9 - 15	1500-3100	105	3.4"L x 2.2"W x 1.3"H	5.99	5.79	5.49	5.29
336225CH	PS-562	19	12/40	5 - 15	2500/3500	100	16mm H x 42mm Dia	5.05	4.92	4.53	4.13

### Piezo Speakers

335687CH	PB-2712P	20	3V	2 - 5	1250	85	13mm H x 30mm Dia	\$3.55	\$3.39	\$3.23	\$2.92
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Color Code Legend  
**New** **Sale** **Lower\$** **QtySave**

Order 24/7 Toll Free 1-800-831-4242

143



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20

**Order Anytime, Day or Night**

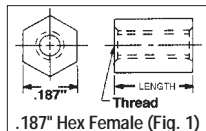
Our friendly sales department will take your order 24x7x365 by phone, fax, web or email.

Electromech



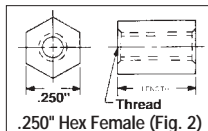
Hex  
.187\"/>

## Aluminum &amp; Brass Threaded Standoffs

† Finish: Iridite (clear)<sup>1</sup> per MIL-C-5541-D;  
bright tin plate<sup>2</sup>; stainless steel<sup>3</sup>Hex  
.250\"/>

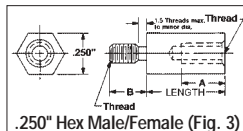
.187\"/&gt;

4-40 Thread (Fig. 1) .187\"/&gt;



.250\"/&gt;

4-40 Thread (Fig. 3) (Thread A: .250\"/&gt;



.250\"/&gt;

\* Prepackaged: order in  
increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing		
			10	100	1000
175636CH	Brass <sup>2</sup>	.187"	\$.21	\$.15	\$.10
102795CH	Brass <sup>2</sup>	.240"	.21	.15	.10
133612CH	Alum <sup>1</sup>	.250"	.20	.12	<b>.09</b>
133639CH	Alum <sup>1</sup>	.500"	.22	.20	.11
139791CH	Alum <sup>1</sup>	.562"	.18	.15	.13
133647CH	Alum <sup>1</sup>	.625"	.14	.13	.11
133655CH	Alum <sup>1</sup>	.750"	.43	.39	.23
139184CH	Alum <sup>1</sup>	1.000"	.43	.39	.32

.250\"/&gt;

4-40 Thread (Fig. 2) .250\"/&gt;

\* Prepackaged: order in  
increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing			
			1	10	100	1000
139192CH	Alum <sup>1</sup>	.250"	*	\$.16	\$.12	\$.08
77500CH	Alum <sup>1</sup>	.375"	*	.20	.15	.09
134762CH	Alum <sup>1</sup>	.437"	*	.21	.18	.15
108370CH	Alum <sup>1</sup>	.500"	*	.25	.17	.10
77518CH	Alum <sup>1</sup>	.625"	.42	.35	.19	.14
133604CH	Alum <sup>1</sup>	.750"	.39	.35	.19	.14
139205CH	Alum <sup>1</sup>	1.000"	.49	.35	.25	.15

.250\"/&gt;

6-32 Thread (Fig. 2) .250\"/&gt;

\* Prepackaged: order in  
increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing			
			1	10	100	1000
77534CH	Alum <sup>1</sup>	.250"	*	\$.22	\$.14	\$.08
133591CH	Alum <sup>1</sup>	.375"	.32	.29	.13	.09
77542CH	Alum <sup>1</sup>	.500"	*	.22	.17	.10
77551CH	Alum <sup>1</sup>	.625"	*	.25	.19	.14
77569CH	Alum <sup>1</sup>	.750"	.31	.28	.21	.13
77577CH	Alum <sup>1</sup>	1.000"	.59	.35	.30	.16
143407CH	Alum <sup>1</sup>	1.500"	.69	.61	.49	.42
143440CH	Alum <sup>1</sup>	1.750"	.79	.59	.48	.41

Part Number	Metal†	Hex Length	Pricing			
			1	10	100	1000
77585CH	Alum <sup>1</sup>	.250"	\$.41	\$.37	\$.17	<b>\$.128</b>
77593CH	Alum <sup>1</sup>	.375"	.43	.34	.19	.12
111755CH	Alum <sup>1</sup>	.500"	.49	.44	.36	.20
175628CH	Steel <sup>3</sup>	.580"	*	.19	.14	.12
139213CH	Alum <sup>1</sup>	.625"	.43	.39	.35	.31
139221CH	Alum <sup>1</sup>	.750"	.43	.39	.35	.21
139230CH	Alum <sup>1</sup>	1.00"	.49	.44	.36	.30
128565CH	Alum <sup>1</sup>	1.25"	.59	.53	.44	.38
166545CH	Alum <sup>1</sup>	1.50"	.75	.65	.59	.49

.250\"/&gt;

6-32 Thread (Fig. 3) (Thread A: .375\"/&gt;

10 piece minimum

Part Number	Metal†	Hex Length	Pricing		
			10	100	1000
133541CH	Alum <sup>1</sup>	.250"	\$.39	\$.35	\$.21
133567CH	Alum <sup>1</sup>	.375"	.39	.35	.22
77606CH	Alum <sup>1</sup>	.500"	.32	.29	.23
77622CH	Alum <sup>1</sup>	.750"	.39	.35	.28
77649CH	Alum <sup>1</sup>	1.000"	.44	.40	.32
206623CH	Steel <sup>3</sup>	1.250"	.40	.36	.32

## RAF Instrumentation Handle

- 5/8" oval diameter
- 9/32" thick
- 10-32 internal thread size
- Color: nickel plate
- Base metal: brass



Quantity SAVE

Part No.	Size (L" x H")	1	10	100
216821CH	3.0 x 1.3	\$2.95	\$2.25	<b>\$1.69</b>

## Lowest Price Guarantee

Found a product at a lower print advertised price?  
We'll beat that price by 10% right down to our cost!

## SAE Hardware

- Zinc-plated steel



Prepackaged: order in increments of 100 or 1000

Slotted Pan Head Machine Screws				
Part Number	Screw Size	Thread	Length (inches)	100 piece minimum
				100 1000
38172CH	2-56	Std	.250	\$.025 \$.022
40951CH	4-40	Std	.250	.019 .011
40969CH	4-40	Std	.375	.017 .012
106809CH	4-40	Std	.500	.018 .013
106542CH	6-32	Std	.250	.018 .013
42446CH	6-32	Std	.375	.019 .014
42438CH	6-32	Std	.500	.019 .015
106796CH	8-32	Std	.500	.04 .025

Hex Nuts				
Part Number	Screw Size	Thread	Length (inches)	100 piece minimum
				100 1000
38164CH	2-56	Std	.183	\$.022 \$.014
211123CH	4-40	Sm	.184	.023 .011
40942CH	4-40	Std	.243	.025 .013
42420CH	6-32	Std	.306	.023 .014
51553CH	8-32	Std	.334	.02 .014

Flat Washers				
Part Number	Screw Size	Dia. (inches)	100 piece minimum	
			100 1000	
211131CH	4	.237	\$.019	<b>\$.014</b>
106825CH	4	.281	.022	.019
106833CH	6	.373	.022	.019
106841CH	8	.377	.04	.025

Internal Tooth Lock Washers				
Part Number	Screw Size	Dia. (inches)	100 piece minimum	
			100 1000	
106850CH	4	.258	\$.018	\$.015
106868CH	6	.277	.018	.015
106876CH	8	.323	.016	.015

Split Lock Washers				
Part Number	Screw Size	Dia. (inches)	100 piece minimum	
			100 1000	
106788CH	2	.161	\$.024	\$.016
211140CH	4	.201	.02	.015
40977CH	4	.242	.02	.015
42462CH	6	.240	.011	.009
51609CH	8	.279	.012	.006

## 200 Piece Spring Assortment

This kit contains approximately 200 springs with 20 different types, compression and tension ratings in a clear plastic case. They range from smallest which is about 10mm long to the longest 70mm long. Spring sizes listed on lid of plastic case.



Part No.	Description	1	10
314413CH	200-piece spring assortment	\$7.29	\$6.89

## 3M Adhesive Rubber Feet

These are perfect for project boxes, providing a non-slip, non-scratch surface.



Fig. 1

Fig. 2

Fig. 3

Fig. 4

Part No.	Product No.	Type	Fig.	Pack	(W" x H")	1	10	50
119618CH	SJ5012BLK4	Black cylindrical	1	4	.50 x .14	\$.39	\$.28	\$.26
142658CH	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	5.95	5.35	4.79
142771CH	SJ5008BLKC	Black square	2	100	.50 x .12	6.69	4.76	3.40
142682CH	SJ5018BLKC	Black square	3	100	.50 x .23	9.95	8.25	5.39
126981CH	SJ5023BLK4	Black square	4	4	.81 x .30	1.95	1.75	1.59
142666CH	SJ5023BLKC	Black square	4	100	.81 x .30	14.25	9.10	8.69

## PCB Standoff Mounting Hardware

- Snap "on"
- Nylon
- 291987CH: with thread
- 10 piece minimum

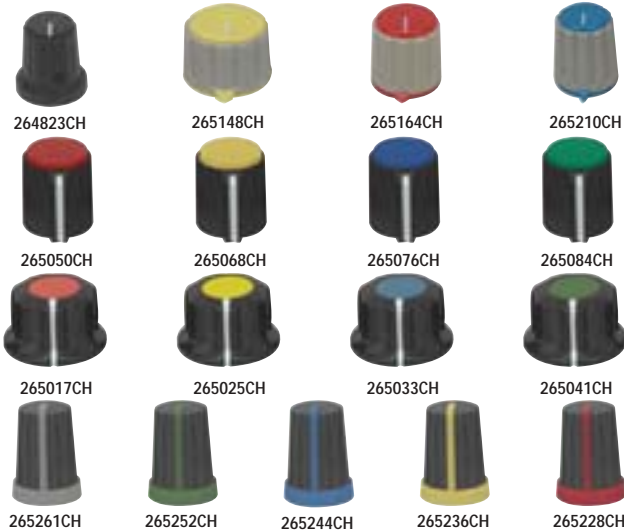


Part No.	Mfr. Cross Ref. No.	Dimensions	Holes	10	100	1000
28337CH	PCST	1.2"L x 0.6"W	0.2" .....	\$.12	\$.07	\$.04
129251CH	PCST2	0.9"L x 0.4"Dia.	0.2"/0.3" .....	.18	.11	.075
148056CH	PCST3	0.8"L x 0.5"W	0.1"/0.2" .....	.09	.08	<b>.06</b>
156831CH	KCS10	0.68"L x 0.32"Dia.	0.14" .....	.125	.093	.063
291961CH	ACBS-6	0.75"L x 0.5"W	0.1"/0.2" .....	.135	.058	.033
291987CH	CASE-45-50	0.85"L x 0.3"Dia.	0.2" .....	.14	.092	.059
292015CH	SCB-6	0.7"L x 0.27"Dia.	0.1"/0.2" .....	.162	.138	.117



## Color Instrumentation Knobs (1/4" Shaft Diameters)

- JK-907 series: pressure fit type, top set screw; JK-905 series: side set screw
- CR-MS series for knurled shaft
- All photos on [www.Jameco.com](http://www.Jameco.com)



Part No.	Product No.	Body Color	Pointer Color	Size (H" x Dia.)	1	10	100
264823CH	CPBTAA191A1S6.4BK	Black/Black	White	.79 x .77	\$.99	\$.93	\$.88
264786CH	CPBTAA191A1S6.4RD	Black/Red	White	.79 x .77	.99	.93	.88
264794CH	CPBTAA191A1S6.4YW	Black/Yellow	White	.79 x .77	.99	.93	.88
264807CH	CPBTAA191A1S6.4BL	Black/Blue	White	.79 x .77	.99	.93	.88
264815CH	CPBTAA191A1S6.4GN	Black/Green	White	.79 x .77	.99	.93	.88
264831CH	CPBTAA191A1S6.4GY	Black/Grey	White	.79 x .77	.99	.93	.88
265156CH	JK-907A-BL	Grey/Blue	Blue	.76 x 1.27	1.99	1.87	1.78
265130CH	JK-907A-RD	Grey/Red	Red	.76 x 1.27	1.99	1.87	1.78
265148CH	JK-907A-YW	Grey/Yellow	Yellow	.76 x 1.27	1.99	1.87	1.78
265181CH	JK-907B-BL	Grey/Blue	Blue	.86 x .94	1.99	1.87	1.78
265172CH	JK-907B-YW	Grey/Yellow	Yellow	.86 x .94	1.99	1.87	1.78
265164CH	JK-907B-RD	Grey/Red	Red	.86 x .94	1.99	1.87	1.78
265199CH	JK-907C-RD	Grey/Red	Red	.72 x .68	1.99	1.87	1.69
265201CH	JK-907C-YW	Grey/Yellow	Yellow	.72 x .68	1.99	1.87	1.78
265210CH	JK-907C-BL	Grey/Blue	Blue	.72 x .68	1.99	1.87	1.78
265050CH	JK-905A	Black/Red	White	.58 x .57	.92	.73	.66
265068CH	JK-905B	Black/Yellow	White	.58 x .57	.92	.73	.66
265076CH	JK-905C	Black/Blue	White	.58 x .57	.92	.73	.66
265084CH	JK-905D	Black/Green	White	.58 x .57	.92	.73	.66
265017CH	JK-904A	Black/Red	White	.47 x .78	.99	.93	.88
265025CH	JK-904B	Black/Yellow	White	.47 x .78	.99	.93	.88
265033CH	JK-904C	Black/Blue	White	.47 x .78	.99	.93	.88
265041CH	JK-904D	Black/Green	White	.47 x .78	.99	.93	.88
265261CH	CR-MS-5C5-T18*	Grey	Grey	.68 x .51	.78	.67	.61
265252CH	CR-MS-4C5-T18*	Grey	Green	.68 x .51	.78	.67	.61
265244CH	CR-MS-3C5-T18*	Grey	Blue	.68 x .51	.78	.67	.61
265236CH	CR-MS-2C5-T18*	Grey	Yellow	.68 x .51	.78	.67	.61
265228CH	CR-MS-1C5-T18*	Grey	Red	.68 x .51	.78	.67	.61

\* For use with 1/4" knurled shaft

## Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

SAVE \$36

100 each	100 each	100 each	100 each	100 each	100 each
Spacers	Hex nuts	Flat	Int. tooth	Split lock	PH machine screws
—	2-56	—	—	#2	2-56 x 1/4, —
4-40	4-40	#4	#4	#4	4-40 x 1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x 1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x 1/2, —
Part No.	Description	Wt. (lbs.)	1	10	
108433CH	2300 pcs. Hardware kit	7.5	\$55.95	\$50.36	
130497CH	Refill for 108433CH (2300 pcs.)	2.7	39.95	35.95	



## Black Instrumentation Knobs (1/4" Shaft Diameters)

- Set screw for secure attachment
- RN-112A/113A/114A: Numeric dial type

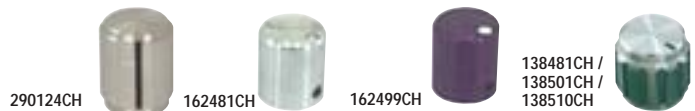


Part No.	Product No.	Body Color	Pointer Color	Size (H" x Dia.)	1	10	100
265092CH	JK-906A	Black	White	.72 x 1.39	\$1.09	\$.87	\$.80
265105CH	JK-906B	Black	White	.79 x .95	1.02	.71	.65
265113CH	JK-906C	Black	White	.64 x .82	.83	.62	.57
265121CH	JK-906D	Black	White	.58 x .61	.68	.53	.50
264997CH	JK-902A	Black	White	.69 x 1.31	.74	.57	.53
265009CH	JK-902B	Black	White	.60 x .95	.69	.47	.44
264920CH	JK-901A	Black/Alum	White	.79 x 1.77	1.34	1.16	1.05
264946CH	JK-901B	Black/Alum	White	.64 x 1.29	.90	.71	.65
264954CH	JK-901C	Black/Alum	White	.61 x 1.06	.75	.59	.54
264989CH	JK-901D	Black/Alum	White	.47 x .78	.68	.53	.48
264882CH	RN-112A	Black/Alum	Numeric	.90 x 1.46	.99	.93	.88
264891CH	RN-113A	Black/Alum	Numeric	.70 x 1.15	.99	.93	.88
264911CH	RN-114A	Black/Alum	Numeric	.58 x 1.46	.99	.93	.88
102787CH	JK-903C	Black	White	.54 x 1.25	.64	.41	.39
104176CH	JK-902C	Black	White	.49 x .75	.99	.85	.65
202286CH	CP-Z1-M-S	Black/Alum	White	.60 x .80	.79	.69	.64
136240CH	GKB-214	Black/Alum	White	.52 x .54	.65	.55	.49
138392CH	41108-1	Black/Alum	White	.56 x .85	.79	.59	.54



## Aluminum Instrumentation Knobs (1/8" and 1/4" Shaft Diameters)

- Includes: Set screw for secure attachment
- 290124CH: Coarse surface for sensitive control; 1/8" shaft diameter



Part No.	Mfr. Ref. No.	Shaft Size	Body Color	Pointer Color	Size (H" x Dia.)	1	10	100
290124CH	42008-1	1/8"	Silver	Silver	.500 x .625 ..	\$1.99	\$1.79	\$1.61
162481CH	K5-1/4S	1/4"	Chrome	Silver	.500 x .560 ....	1.19	1.09	.96
162499CH	K5-1/4B	1/4"	Black	White	.500 x .560 ....	1.55	1.39	1.07
138481CH	KN031	1/4"	Aluminum	Black	.610 x .650 ....	1.49	1.35	1.19
138501CH	KN032	1/4"	Aluminum	Black	.870 x .750 ....	1.95	1.71	1.55
138510CH	KN033	1/4"	Aluminum	Black	1.18 x .870 ....	2.49	2.24	1.95

# DC Brushless Fans

Color Code Legend  
New Sale Lower\$ QtySave



163475CH



102921CH

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating

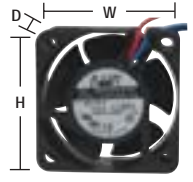
Lower \$\$\$



Quantity SAVE



213891CH



249375CH

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size (W" x H" x D") See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
163475CH	Nidec	C34427-55APP	5	1.00 x 1.00 x 0.40	0.5	Ball	90	0.45	—	22	2"	\$4.95	\$4.46	\$3.56	\$2.67
131246CH	Adda	AD0205LX-G50	5	1.00 x 1.00 x 0.40	1.8	Sleeve	100	0.5	UL/CSA/CE	15.6	5.5"	8.49	7.64	7.01	6.38
206156CH	Sunon	KDE0502PFB3-8	5	1.00 x 1.00 x 0.40	1.83	Ball	60	0.3	UL/CSA/TUV/CE	23	5"	11.95	10.76	8.60	6.45
196373CH	Sunon	KD0504PFB2-8	5	1.60 x 1.60 x 0.40	5.5	Ball	90	0.5	UL/CUL	23	12"	8.95	8.09	7.25	6.55
102921CH	Sunon	KD0504PFS2-8	5	1.60 x 1.60 x 0.40	6.3	Sleeve	120	0.6	UL/CUL	24.3	12"	7.95	6.95	6.25	5.59
171678CH	Delta	AFB0405HHD	5	1.60 x 1.60 x 0.80	8.6	Ball	700	2.0	—	36	2.5"	5.49	4.94	4.45	3.70
207061CH	Adda	AD0505MB-G90	5	2.00 x 2.00 x 0.40	10.5	Ball	120	0.7	UL/CSA/CE	24	11"	7.95	7.16	5.72	4.29
279566CH	Mechatronics	F6025H05B	5	2.36 x 2.36 x 1.00	20	Ball	410	2.05	UL/CUL/TUV	31	6"	8.45	8.05	7.18	6.82
212804CH	Sunon	KDE1202PFB3-8	12	1.00 x 1.00 x 0.40	1.3	Ball	40	0.5	UL/CUL/TUV/CE/VDE	26	5.9"	10.95	9.89	8.89	7.99
102912CH	Sunon	KD1202PFB2-8	12	1.00 x 1.00 x 0.40	2.0	Ball	60	0.7	UL/CSA/TUV	30	6"	11.95	10.74	8.94	7.14
212791CH	Sunon	KDE1202PFB1-8	12	1.00 x 1.00 x 0.40	2.4	Ball	80	1.0	UL/CUL/TUV/CE/VDE	33	5.9"	10.95	9.86	7.88	6.26
212767CH	Sunon	KDE1203PFB3-8	12	1.18 x 1.18 x 0.40	2.3	Ball	50	0.6	UL/CUL/TUV/CE/VDE	18.5	5.9"	9.49	8.54	6.83	6.35
212783CH	Sunon	KDE1203PFB1-8	12	1.18 x 1.18 x 0.40	3.5	Ball	75	0.9	UL/CUL/TUV/CE/VDE	27	5.9"	10.95	8.50	7.85	6.95
212732CH	Sunon	KDE1235PFB3-8	12	1.40 x 1.40 x 0.40	3.2	Ball	50	0.6	UL/CUL/TUV/CE/VDE	18	5.9"	11.49	10.34	8.36	6.38
212741CH	Sunon	KDE1235PFB2-8	12	1.40 x 1.40 x 0.40	4.5	Ball	60	0.8	UL/CUL/TUV/CE/VDE	21	5.9"	11.95	9.49	8.49	7.65
212759CH	Sunon	KDE1235PFB1-8	12	1.40 x 1.40 x 0.40	5.2	Ball	80	1.0	UL/CUL/TUV/CE/VDE	25	5.9"	11.95	10.76	9.68	8.06
207052CH	Adda	AD0412MB-K90	12	1.60 x 1.60 x 0.25	5.5	Ball	60	0.72	UL/CSA/TUV/CE	25	5"	6.95	6.26	5.00	3.75
191476CH	Common Wealth	FP-108HX/DC	12	1.60 x 1.60 x 0.40	4.0	Sleeve	60	0.72	UL/CSA/TUV/CE	25	12"	5.95	5.36	4.28	3.21
210796CH	Sunon	KD1204PFB3H	12	1.60 x 1.60 x 0.40	4.7	Ball	50	0.6	UL/CUL/TUV/CE	24	14"	6.95	6.25	5.59	4.95
355418CH	ReliaPro	JR-DCF1241010S1	12	1.60 x 1.60 x 0.40	5.2	Sleeve	60	0.72	UL/CUL/TUV/CE	22.6	11.5"	5.65	3.85	3.52	3.35
279611CH	Toyo	T401012VH	12	1.60 x 1.60 x 0.40	5.8	Ball	90	1.1	UL/CUL/TUV/CE	33.5	12"	7.49	6.74	5.39	4.04
189691CH	Sunon	KD1204PFS2	12	1.60 x 1.60 x 0.40	6.3	Sleeve	70	0.9	UL/CSA/TUV	24	12"	7.95	7.16	5.72	4.29
161699CH	Sunon	KD1204PFB2-8	12	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	7.95	7.16	5.72	4.29
212716CH	Sunon	KDE1204PFB2-H	12	1.60 x 1.60 x 0.40	6.5	Ball	90	1.1	UL/CUL/TUV/CE/VDE	27	12"	6.65	4.95	4.36	3.95
290010CH	Adda	AD0412HB-G70	12	1.60 x 1.60 x 0.40	6.7	Ball	100	1.2	UL/CUL/TUV/CE	25	10" w/ conn.	4.95	4.60	4.14	3.72
311968CH	Adda	AD0412HS-G70	12	1.60 x 1.60 x 0.40	6.7	Sleeve	100	1.2	UL/CUL/TUV/CE	25	2.5"	4.25	2.89	2.69	2.59
213428CH	Adda <sup>1</sup>	AD0412HB-G76	12	1.60 x 1.60 x 0.40	6.7	Ball	100	1.2	CE	30.2	12"/3 leads	7.59	6.83	5.46	4.10
212724CH	Sunon	KDE1204PFB1-H	12	1.60 x 1.60 x 0.40	8.3	Ball	110	1.4	UL/CUL/TUV/CE/VDE	34.4	12"	6.65	5.98	4.79	3.59
174131CH	Jamicon	JF0413S1M	12	1.60 x 1.60 x 0.47	3.8	Sleeve	90	1.1	UL/CSA/TUV	29	14"	2.95	2.66	2.12	1.59
213891CH	Adda	AD0412MB-D50	12	1.60 x 1.60 x 0.60	8.1	Ball	100	1.2	UL/CUL/CE	31.8	11.5" - \$6.99	5.99	5.48	4.98	4.53
136178CH	Adda	AD0412MS-C70	12	1.60 x 1.60 x 0.80	5	Sleeve	110	1.32	UL/CSA	23	9"	5.49	4.95	3.95	2.95
195899CH	Sunon	KDE1204PKS2	12	1.60 x 1.60 x 0.80	6.5	Sleeve	70	0.9	UL/CSA/TUV	25.5	12"	7.95	7.15	6.45	5.35
279620CH	Toyo	T402012H	12	1.60 x 1.60 x 0.80	6.7	Ball	70	0.84	UL/CUL/TUV/CE	26.2	12"	7.29	6.56	5.25	3.94
195881CH	Common Wealth	FP-108G/DC(S1)	12	1.60 x 1.60 x 0.80	7.6	Ball	160	1.92	UL/CSA/CE	32	12"	3.45	3.11	2.48	1.86
206447CH	Delta	DFB0412H	12	1.60 x 1.60 x 0.80	8.5	Ball	100	1.0	UL/CSA/VDE	32	8"	7.95	7.16	6.44	5.80
249375CH	Adda <sup>2</sup>	ADO412HB-C56	12	1.60 x 1.60 x 0.80	9.2	Ball	100	1.1	UL/CUL/TUV/CE	39.3	12"	8.95	8.06	6.44	4.83
206164CH	Sunon	KDE1204PKBX-8	12	1.60 x 1.60 x 0.80	10	Ball	90	1.1	UL/TUV/CE	29.4	12"	8.95	7.95	6.95	6.95
212679CH	Sunon	KDE1245PFB3-H	12	1.80 x 1.80 x 0.40	6.1	Ball	60	0.7	UL/CUL/TUV/CE/VDE	23	12"	4.49	4.04	3.23	2.84
212687CH	Sunon	KDE1245PFB2-H	12	1.80 x 1.80 x 0.40	8.0	Ball	90	1.1	UL/CUL/TUV/CE/VDE	29	12"	4.59	4.13	3.30	2.84
212644CH	Sunon	KDE1205PFB3-HG	12	2.00 x 2.00 x 0.40	8.5	Ball	60	0.7	UL/CUL/TUV/CE/VDE	26	12"	6.49	5.84	5.26	4.73
212652CH	Sunon	KDE1205PFB2-HG	12	2.00 x 2.00 x 0.40	10.6	Ball	80	1.0	UL/CUL/TUV/CE/VDE	31.5	12"	6.65	5.98	4.79	3.59
297959CH	Delta	EFB0512HA	12	2.00 x 2.00 x 0.40	11.4	Ball	150	1.8	UL/CSA/CE/VDE	30	6" w/ conn.	6.29	4.99	4.66	4.43
212661CH	Sunon	KDE1205PFB1-HG	12	2.00 x 2.00 x 0.40	12.5	Ball	110	1.4	UL/CUL/TUV/CE/VDE	36	12"	6.65	4.95	4.36	3.95
212628CH	Sunon	KDE1205PHB3-H	12	2.00 x 2.00 x 0.60	10.2	Ball	60	0.7	UL/CUL/TUV/CE/VDE	22.5	12"	8.29	7.46	6.71	5.60
206965CH	Adda	AD0512HB-D71	12	2.00 x 2.00 x 0.60	11.7	Ball	100	1.2	UL/CUL/TUV/CE	28.5	5"	3.55	3.20	2.56	1.92
139601CH	Adda	AD0512HS-D71	12	2.00 x 2.00 x 0.60	12	Sleeve	100	1.2	UL/CSA/CE	29	12"	8.95	8.06	6.44	4.83
206172CH	Sunon <sup>3</sup>	KDE1205PHB2-TM	12	2.00 x 2.00 x 0.60	12.7	Ball	140	1.7	UL/CSA/CE	27.8	11"/3 leads	7.95	7.16	6.44	5.80
212636CH	Sunon	KDE1205PHB2-H	12	2.00 x 2.00 x 0.60	13	Ball	80	1.0	UL/CUL/TUV/CE/VDE	29.5	12"	8.29	7.46	5.97	4.48
249092CH	Sunon	KD1206PFB1	12	2.36 x 2.36 x 0.40	16.5	Ball	120	1.4	UL/CSA/CE/TUV	36	11"	7.99	7.17	6.60	6.05
354933CH	Delta	EFB0612MA	12	2.36 x 2.36 x 0.40	15.5	Ball	120	1.4	UL/CSA/VDE/CE	29	12"/3 leads	7.99	7.17	6.60	6.05
195944CH	Adda	AD612MS-D71GL	12	2.36 x 2.36 x 0.60	14.2	Sleeve	110	1.32	UL/CSA/TUV/CE	28.8	6"	6.95	6.26	5.00	3.75
249068CH	Jamicon	JF0615B1H	12	2.36 x 2.36 x 0.60	15.74	Ball	170	2.04	UL/CUL/TUV/CE	34	10.5"	8.75	7.89	7.09	6.39
175046CH	Globe Motors	D24-B08A-04W3-000	12	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	6.95	6.26	5.00	3.75
144160CH	Adda	AD0612LB-C70GL	12	2.36 x 2.36 x 0.80	12.6	Ball	80	1.0	UL/CSA/TUV	22.7	6"	8.49	7.69	6.15	4.65
189595CH	Sunon	KD1206PKS2	12	2.36 x 2.36 x 0.80	16.5	Sleeve	150	1.8	UL/CSA/TUV/CE	31	12"	4.95	4.46	3.56	2.61

<sup>1</sup> 213428CH: ATX PC type

<sup>2</sup> 249375CH: Speed sensor

<sup>3</sup> 206172CH: Locked rotor alarm

Blue Part No. = Limited Quantity Available

DC Brushless Fans continued on pages 147 and 148

• Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.00	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	127	150	170



# DC Brushless Fans



234894CH



102955CH

Call for additional OEM PRICING – we carry major manufacturers.

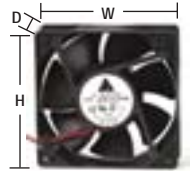
- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating



Quantity SAVE



227900CH



163619CH

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size (W" x H" x D")* See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
185818CH	Cheng	CHA6012DB	12	2.36 x 2.36 x 0.90	20.5	Ball	180	2.5	UL	33	12"	\$6.95	\$6.26	\$5.63	\$4.74
237075CH	Nidec	TA225DC-B33399-55	12	2.36 x 2.36 x 1.00	12	Ball	110	1.3	UL/CSA	17.2	10"	5.95	5.36	4.82	4.06
75352CH	Common Wealth	FP108FDC12VS2	12	2.36 x 2.36 x 1.00	15.5	Sleeve	110	1.3	UL/CSA/TUV/CE	25	12"	5.79	5.21	4.17	3.13
136143CH	Delta	SB0612M	12	2.36 x 2.36 x 1.00	17.7	Sleeve	110	1.8	UL/CSA/VDE	26.5	5"	5.95	5.36	4.28	3.21
279646CH	Toyo	T602512H	12	2.36 x 2.36 x 1.00	18.1	Ball	140	1.7	UL/CUL/TUV/CE	34	12"	5.89	5.30	4.24	3.18
102947CH	Jamicon	JF0625S1H	12	2.36 x 2.36 x 1.00	20.5	Sleeve	230	2.7	UL/CSA/TUV	30.5	11"	6.95	6.29	5.05	3.79
150421CH	Jamicon	JF0625B1H	12	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	6.95	6.26	5.00	4.29
195910CH	Sunon	KD1206PTS1	12	2.36 x 2.36 x 1.00	21.7	Sleeve	190	2.3	UL/CSA/TUV	34	12"	6.49	5.84	5.26	4.73
109081CH	Adda	AD0812HS-D71	12	3.15 x 3.15 x 0.60	29	Sleeve	190	2.3	UL/CSA/TUV/CE	31.4	12"	9.95	8.99	8.09	7.25
141920CH	Adda	AD0812HB-C70	12	3.15 x 3.15 x 0.80	27.3	Ball	240	2.9	UL/CSA/CE	34	12"	6.35	5.95	5.75	5.55
16993CH	Various <sup>1*</sup>	FAN7315SL	12	3.15 x 3.15 x 1.00	25.40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12**	6.95	6.26	5.00	3.75
75361CH	Various*	FAN6315BL	12	3.15 x 3.15 x 1.00	25.40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12**	5.95	5.36	4.28	3.21
234894CH	Adda	AD0812LB-A70GL	12	3.15 x 3.15 x 1.00	27.6	Ball	120	1.44	UL/CSA/TUV/CE	22.5	11.5	8.19	6.39	5.89	5.49
286926CH	Toyo	USTF802512MW	12	3.15 x 3.15 x 1.00	29	Ball	180	2.16	UL/CSA/CE/VDE	24.8	4.5"	6.99	6.29	5.05	3.79
154288CH	Sunon	KDE1208PTS3-6	12	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5"	4.55	4.10	3.28	2.46
195952CH	Panasonic	FMB-08A12M	12	3.15 x 3.15 x 1.00	30	Sleeve	124	1.5	UL/CSA	28	11"	4.55	4.10	3.28	2.46
123529CH	Adda	AD0812MS-A70GL	12	3.15 x 3.15 x 1.00	32	Sleeve	150	1.8	UL/CSA/TUV	28.3	12"	6.95	6.26	5.00	3.75
265578CH	Yate Loon	D80SH-12	12	3.15 x 3.15 x 1.00	33	Ball	190	2.28	UL/CUL/TUV/CE	35.0	5"	7.29	7.18	7.07	6.96
166959CH	NMB (Smart Fan) <sup>†</sup>	3110NL-012Q340-00	12	3.15 x 3.15 x 1.00	35	Ball	290	3.5	UL/CSA	35	2"	8.95	8.06	6.44	4.83
191599CH	NMB	3110KL-04W-B50	12	3.15 x 3.15 x 1.00	39	Ball	230	2.7	CSA	34	10"	7.49	6.74	5.39	4.04
185834CH	Panaflo	FBM08A12H	12	3.15 x 3.15 x 1.00	39.6	Sleeve	220	2.1	—	32	11"	6.95	6.26	5.00	3.75
206181CH	Sunon	KDE1208PTS1-6	12	3.15 x 3.15 x 1.00	42	Sleeve	220	2.6	UL/CSA/TUV/CE	34	9"	5.95	5.36	4.28	3.21
185826CH	NMB <sup>2</sup>	3110KL-04W-B69	12	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13*/3 leads	6.95	6.26	5.63	5.07
355400CH	ReliaPro	JR-DCF128025B1	12	3.15 x 3.15 x 1.00	42	Ball	230	2.8	UL/CUL/TUV/CE	28.6	11.5"	7.05	5.10	4.80	4.56
102955CH	Sunon	KD1208PTB1	12	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12"	6.49	5.85	5.29	4.75
249148CH	Sunon	KDE1208PTB1-6	12	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	—	33.5	12"	6.49	5.85	5.29	4.75
172460CH	Nidec <sup>3</sup>	TA300DCM33406-68	12	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11*/3 leads	9.95	8.99	7.19	5.39
189755CH	Cheng	CHA8012DB	12	3.15 x 3.15 x 1.00	44.3	Ball	300	3.6	UL	37	2" w/ conn.	5.49	4.94	3.95	2.96
323897CH	Mechatronics <sup>2</sup>	F8025E12B1	12	3.15 x 3.15 x 1.00	46	Ball	240	2.88	UL/CUL/TUV	32	3*/3 leads	6.99	5.09	4.79	4.45
196015CH	Cheng	CHA9212CB	12	3.63 x 3.63 x 1.00	44.1	Ball	190	2.3	UL/CSA	31	12"	5.25	4.73	3.78	2.84
75441CH	Common Wealth	FP108BDC12VS1	12	3.63 x 3.63 x 1.00	45	Sleeve	320	3.1	UL/CSA/TUV	32	3*/3 leads	6.99	5.09	4.79	4.45
154641CH	Nidec	TA350DC-M33422-16	12	3.63 x 3.63 x 1.00	48	Ball	290	3.5	UL/CSA	43	12"	7.55	6.80	5.44	4.08
190983CH	Sunon	KD1209PTB1-6A	12	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	7.25	6.52	5.22	3.92
116476CH	Jamicon	JF0925S1H	12	3.63 x 3.63 x 1.00	52	Sleeve	350	4.2	UL/CSA/TUV	37	10"	3.99	3.59	2.87	2.15
162739CH	NMB (Smart Fan) <sup>†</sup>	3610KL-04W-B56	12	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10*/3 leads	7.95	7.16	6.44	5.80
102963CH	Nidec	TA350DC-M33503-55	12	3.63 x 3.63 x 1.00	56	Ball	400	4.8	UL/CSA	45	8"	7.95	6.95	6.25	5.59
279654CH	Toyo	T922512H	12	3.63 x 3.63 x 1.00	56.4	Ball	280	3.4	UL/CUL/TUV/CE	34.3	12"	7.95	7.15	6.65	6.45
284971CH	Delta	EFB09SH	12	3.63 x 3.63 x 1.00	75.6	Ball	500	6.0	UL/CSA/VDE/CE	47	5"	8.99	8.09	6.47	4.85
319193CH	Pabst	3312-177	12	3.63 x 3.63 x 1.26	54.7	Ball	290	3.5	UL/CSA/CE/VDE	43	12"	7.95	7.15	6.55	6.45
213567CH	Nidec <sup>4</sup>	A34124-33	12	3.83 x 3.72 x 1.30	25	Ball	650	7.8	UL/CUL	60	11.5*/3 leads	19.95	17.95	14.36	10.77
174140CH	Common Wealth	FP108MS3	12	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	6.95	6.26	5.00	3.75
227900CH	Common Wealth	FP-108M-S1-B	12	4.68 x 4.68 x 1.00	80	Ball	330	4.0	UL/CSA/VDE/CE	42	12"	10.95	9.85	8.89	7.99
174924CH	Globe Motors	D47-B10A-04T3-000	12	4.68 x 4.68 x 1.00	90	Ball	740	6.8	UL/CSA	39	Terminals	6.95	6.26	5.00	3.75
163619CH	NMB (Smart Fan) <sup>†</sup>	4710NL012P535P0	12	4.68 x 4.68 x 1.00	90	Ball	740	8.9	—	38.5	12"	4.95	4.46	3.56	2.67
159020CH	Sunon	KDE1212PMS1-6A	12	4.68 x 4.68 x 1.50	107	Sleeve	570	6.8	UL/CSA/TUV	41	12"	11.95	10.76	8.60	6.45
94625CH	Sunon	KD1212PMB1-6A	12	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV/CE	42	12"	11.95	10.76	8.60	6.45
285966CH	Delta	AFB1212VHE	12	4.68 x 4.68 x 1.50	130	Ball	900	10.8	UL/CSA/VDE/CE	48	6"	14.95	13.45	10.75	8.09
206201CH	Sunon	KDE2404PKB3	24	1.60 x 1.60 x 0.80	6	Ball	30	0.7	UL/CSA/TUV/CE	24	12"	7.49	6.79	6.09	5.49
100909CH	Sunon	KD2404PKS2	24	1.60 x 1.60 x 0.80	6.5	Sleeve	50	1.2	UL/CSA/TUV/CE	25.5	12"	7.95	7.16	6.44	5.36

<sup>1</sup> 16993CH: Replacement for the PC/XT computer power supply fan

<sup>2</sup> 185826CH/323897CH: Speed sensor

<sup>3</sup> 172460CH: Locked rotor alarm

<sup>4</sup> 213567CH: Blower type

<sup>†</sup> Temperature control: P/N 166959CH (40°C); P/N 162739CH (50°C, 3 leads); P/N 163619CH (35°C)

\* Manufacturer & specifications may vary

☉ Blue Part No. = Limited Quantity Available

DC Brushless Fans continued on page 148

◆ Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.00	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	127	150	170

# DC Brushless Fans (Continued)

Color Code Legend  
New Sale Lower\$ QtySave



236099CH



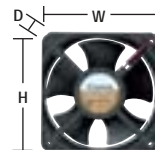
227248CH

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating



249287CH



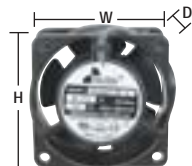
153411CH

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size (W" x H" x D") See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
140661CH	NMB	2408NL-05W-B60	24	2.36 x 2.36 x 0.80	18.4	Ball	100	2.4	—	31	2"	\$5.95	\$5.36	\$4.28	\$3.21
174107CH	Jamicon	JF0625S2M	24	2.36 x 2.36 x 1.00	18	Sleeve	130	3.1	UL/TUV	28.5	10"	4.99	4.49	4.04	3.64
189860CH	Jamicon	JF0625B2M	24	2.36 x 2.36 x 1.00	18	Ball	130	3.1	UL/CSA/TUV/CE	28.5	10"	8.95	8.06	7.25	6.52
227248CH	Mechatronics	F6025E24B	24	2.36 x 2.36 x 1.00	24	Ball	125	3.0	UL/CUL/TUV	36	12"	7.95	7.15	5.75	4.29
290028CH	Jamicon	JF0825B2M	24	3.15 x 3.15 x 1.00	31.7	Ball	130	3.1	UL/CUL/TUV/CE	29.3	10"	8.25	6.16	5.52	4.99
136160CH	Jamicon	JF0825B2H	24	3.15 x 3.15 x 1.00	39.2	Ball	150	3.6	UL/CSA/TUV	31	12"	9.49	8.55	7.69	6.95
189878CH	Sunon	KD2408PTB1-6A	24	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	36.5	12"	9.95	8.99	8.05	6.75
236099CH	Papst <sup>1</sup>	8314/19H	24	3.15 x 3.15 x 1.26	32	Ball	245	6.0	UL/CSA/VDE/CE	36	12"/3 leads	4.95	4.46	3.56	2.67
189886CH	NMB	3610KL-05W-B30	24	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	7.95	7.16	5.72	4.29
174094CH	Jamicon	JF0925S2H	24	3.63 x 3.63 x 1.00	52	Sleeve	190	4.6	UL/CUL	37	10"	6.95	6.26	5.00	3.75
175281CH	Globe Motors	D47B10A05W2000	24	4.68 x 4.68 x 1.00	70	Ball	160	2.9	UL/CSA/TUV/CE	34	12"	12.95	11.66	10.49	9.44
249287CH	Jamicon	JF1225B2H5	24	4.68 x 4.68 x 1.00	82.97	Ball	500	12	—	41.1	7.5"	12.39	11.15	8.92	6.69
206228CH	Sunon <sup>1</sup>	KDE2412PMS1-6A	24	4.68 x 4.68 x 1.00	107	Sleeve	310	7.4	UL/CSA/TUV/CE	41	11"/3 leads	13.69	12.32	11.09	9.98
100968CH	Sunon	KDE2412PMB3-6A	24	4.68 x 4.68 x 1.50	83	Ball	140	3.4	UL/CSA/TUV/CE	35	12"	12.95	11.69	10.49	9.39
153411CH	Sunon	KD2412PMB2-6A	24	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	11.95	10.79	9.69	8.75
320021CH	Papst	W2G115-AE31-01	24	5.00 x 5.00 x 1.50	130	Ball	475	5.7	UL/CSA/VDE	48	10.5"	33.45	31.79	30.09	27.15

<sup>1</sup> 236099CH/206228CH: Locked rotor alarm

## AC Tube Axial Fans

Call for additional OEM PRICING – we carry major manufacturers.



213866CH



146077CH



- Rating 115 & 220VAC @ 50-60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10.2 to 226 CFM

Fan Power Cords on Next Page



75432CH



111894CH

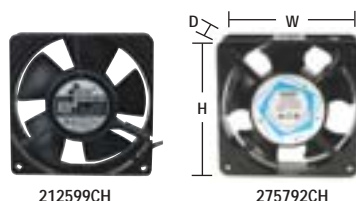
NEW

Part Number	Manufacturer	Product Number	Voltage (VAC)	Size (W" x H" x D") See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
213866CH	Fulltech	UF60D11BWH	115	2.36 x 2.36 x 1.18	10.2	Ball	35	4	UL/CUL/VDE/CE	28	12" leads	\$15.95	\$14.39	\$12.95	\$11.65
162704CH	Toyo	USTF603011153W	115	2.36 x 2.36 x 1.18	11	Ball	38	4	UL/CSA/CE	29	12" leads	15.49	13.95	12.55	11.29
303491CH	Fulltech	UF060DBTH	115	2.36 x 2.36 x 1.18	10	Ball	38	4	UL/CSA/CE	29	Terminals	15.49	13.95	12.55	11.29
146077CH	Common Wealth	FP108AX-S1-B	115	3.15 x 3.15 x 1.00	23	Ball	140	14	UL/CE	29	12" leads	12.95	11.69	10.49	9.45
300556CH	Fulltech	UF80B11SWH	115	3.15 x 3.15 x 1.00	24	Sleeve	140	14	UL/CUL/TUV/CE	35	12" leads	9.19	8.25	7.98	7.70
300257CH	Fulltech	UF80B11BTH	115	3.15 x 3.15 x 1.00	24	Ball	140	14	UL/CUL/TUV/CE	35	Terminals	10.19	9.18	8.87	8.57
212610CH	Fulltech	UF80B12BTH	115	3.15 x 3.15 x 1.00	24	Ball	140	14	UL/CSA/TUV/CE	35	Terminals	9.09	8.37	7.67	6.97
300581CH	Fulltech	UF80A11SWL	115	3.15 x 3.15 x 1.50	25	Sleeve	110	12	UL/CUL/TUV/CE	32	12" leads	9.59	8.64	8.35	8.06
300302CH	Fulltech	UF80A11BWL	115	3.15 x 3.15 x 1.50	25	Ball	110	11	UL/CUL/TUV/CE	32	12" leads	10.55	9.50	9.19	8.87
300329CH	Fulltech	UF80A11BTL	115	3.15 x 3.15 x 1.50	25	Ball	110	12	UL/CUL/TUV/CE	32	Terminals	10.55	9.50	9.19	8.87
300599CH	Fulltech	UF80A11BWH	115	3.15 x 3.15 x 1.50	29	Ball	120	12	UL/CUL/TUV/CE	36	12" leads	11.39	10.26	9.59	9.09
300388CH	Fulltech	UF80A11BTH	115	3.15 x 3.15 x 1.50	30	Ball	120	12	UL/CUL/TUV/CE	36	Terminals	11.39	10.26	9.58	9.10
297932CH	Fulltech	UF80A11SWH	115	3.15 x 3.15 x 1.50	30	Sleeve	120	12	UL/CUL/TUV/CE	36	12" leads	10.19	9.18	8.99	8.57
303386CH	Fulltech	UF80A11STH	115	3.15 x 3.15 x 1.50	30	Sleeve	120	12	UL/CUL/TUV/CE	36	Terminals	10.19	9.18	8.87	8.57
303394CH	Fulltech	UF80A11STL	115	3.15 x 3.15 x 1.50	25	Sleeve	100	11.5	UL/CUL/TUV/CE	32	Terminals	10.19	9.18	8.87	8.57
75459CH	Sunon	SF11592A-1092HBT	115	3.63 x 3.63 x 1.00	37	Ball	110	12	UL/CSA/TUV/CE	40	Terminals	15.95	14.39	12.95	11.65
75432CH	Sunon	SF11592A-1092HSL	115	3.63 x 3.63 x 1.00	36	Sleeve	130	12	UL/CSA/TUV/CE	39	12" leads	12.55	11.29	10.19	9.15
303466CH	Sunon	SF11592A-1092HBL	115	3.63 x 3.63 x 1.00	37	Ball	110	12	UL/CSA/TUV/CE	40	12" leads	15.95	14.39	12.95	11.65
124062CH	Sunon	SP101AT1122HBT	115	4.68 x 4.68 x 1.00	78	Ball	180	18	CSA/TUV/CE	46	Terminals	13.49	10.95	9.89	9.19
303407CH	Sunon	SP100A-1123XBL	115	4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CSA/TUV/CE	47	12" leads	14.95	13.95	12.95	11.95
303415CH	Common Wealth	FP108-1-S1-B/W	115	4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	12" leads	16.95	15.29	13.75	12.39
303482CH	Fulltech	UF12A11SWL	115	4.68 x 4.68 x 1.50	81	Sleeve	150	15	UL/CSA/TUV/CE	15	12" leads	12.85	11.54	10.77	10.23
303440CH	Fulltech	UF12A11BWL1	115	4.68 x 4.68 x 1.50	64	Ball	80	115	UL/CSA/TUV/CE	37	12" leads	14.95	13.49	12.15	10.95
118965CH	Fulltech	UF12A12BTL1	115	4.68 x 4.68 x 1.50	64	Ball	80	15	UL/CSA/TUV/CE	37	Terminals	12.85	11.54	10.76	10.23
303360CH	Fulltech	UF12A11BTL1	115	4.68 x 4.68 x 1.50	64	Ball	80	15	UL/CUL/TUV/CE	37	Terminals	12.85	11.54	10.76	10.23
300791CH	Fulltech	UF12A11STL	115	4.68 x 4.68 x 1.50	81	Sleeve	150	15	UL/CUL/TUV/CE	38	Terminals	10.95	9.84	9.51	9.19
111894CH	Common Wealth	FP108-1-S1/W	115	4.68 x 4.68 x 1.50	105	Sleeve	180	17	UL/CSA/CE	47	12" leads	13.95	12.59	11.35	10.19
106585CH	Common Wealth	FP108-1-S1/T	115	4.68 x 4.68 x 1.50	105	Sleeve	180	12	UL/CSA/CE	47	Terminals	15.95	14.39	12.95	11.65
16934CH	Common Wealth	FP108-1-S1-B	115	4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	Terminals	16.95	15.29	13.75	12.39

Blue Part No. = Limited Quantity Available

• Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.00	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	127	150	170



Call for additional OEM PRICING – we carry major manufacturers.



**SALE**

- Rating 115 & 220VAC @ 50-60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10.2 to 226 CFM



**Quantity SAVE**



206308CH



209365CH

Part Number	Manufacturer	Product Number	Voltage (VAC)	Size (W" x H" x D")* See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
212599CH	Fulltech	UF12A11BWH	115	4.68 x 4.68 x 1.50	106	Ball	190	15	UL/CUL/TUV/CE	46	12" leads	\$12.95	\$11.95	\$10.95	\$9.95
275792CH	Sunon	SP101A-123HBT	115	4.68 x 4.68 x 1.50	107	Ball	180	18	UL/CSA/TUV/CE	50	Terminals	12.85	11.19	9.25	6.95
206308CH	Adda	AA1281UB-AT	115	4.68 x 4.68 x 1.50	107	Ball	230	24	CE	48	Terminals	14.95	13.46	10.76	8.07
102883CH	Sunon	SP100A-1123XBT	115	4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CUL/TUV/CE	50	Terminals	14.95	13.95	12.95	11.95
108724CH	Fulltech	UF15AC11BTH	115	6.75 x 5.90 x 1.50	211	Ball	230	28	UL/CUL/TUV/CE	58	Terminals	27.95	27.10	26.29	25.49
212564CH	Fulltech	UF15PC11BTL	115	6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CUL/TUV/CE	41	Terminals	18.89	17.15	15.59	14.19
212572CH	Fulltech	UF15PC11BWL	115	6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CUL/TUV/CE	41	12" leads	17.95	17.15	15.59	14.19
212581CH	Fulltech	UF15PC11BWH	115	6.75 x 5.90 x 2.00	226	Ball	250	30	UL/CUL/TUV/CE	58	12" leads	24.95	22.46	17.96	17.39
189683CH	Fulltech	UF15PC11BTH	115	6.75 x 5.90 x 2.00	226	Ball	250	30	CSA	58	Terminals	29.95	23.29	21.19	19.25
100917CH	Sunon	SF23080A/2083HSL	220	3.15 x 3.15 x 1.50	30	Sleeve	60	13.5	UL/CSA/TUV/CE	35	12" leads	10.49	8.39	7.55	5.66
209365CH	Bi-Sonic	4C-230LB	220	4.68 x 4.68 x 1.50	63	Ball	60	9	TUV/CE	34	10" leads	12.95	11.66	9.32	8.01
302244CH	Rotron	28023	220	4.68 x 4.68 x 1.50	88	Ball	130	28.6	UL/CSA	50.7	Terminals	18.95	17.05	15.35	13.81
303458CH	Sunon	DP200A-2123XBL	220	4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	12" leads	15.95	14.39	12.95	11.65
102891CH	Sunon	DP200A-2123XBT	220	4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	Terminals	15.95	14.39	12.95	11.65

\* Blue Part No. = Limited Quantity Available

\* Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.00	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	127	150	170

## Fan Guards, Filters and Power Cords



123502CH



120037CH



31923CH/123511CH



25734CH



138561CH/196816CH



229665CH



138579CH/130104CH

Compatible with DC and AC Fans – pages 146 - 149

• All guards and filters fit all fans by matching the size dimension. Example: P/N 300556CH fan (3.15") matches P/N 31923CH metal guard (3.15").

**Quantity SAVE**

Part No.	Description*	1	10	100	250
123502CH	1.60" metal (chrome) guard	\$.49	\$.44	\$.35	\$.26
120037CH	2.36" metal (chrome) guard	.79	.71	.64	.54
31923CH	3.15" metal (chrome) guard	.79	.65	.52	.49
123511CH	3.63" metal (chrome) guard	.99	.89	.71	.53
25734CH	4.68" metal (chrome) guard	1.09	.98	.78	.59

\* Size conversion chart – above

Part No.	Description*	1	10	100	250
138561CH	3.15" plastic guard with mesh	\$1.39	\$1.25	\$1.15	\$.95
229665CH	3.63" plastic guard with mesh	1.49	1.34	1.07	.80
196816CH	4.68" plastic guard with mesh	1.95	1.55	1.39	1.25
138579CH	3.15" alum. washable filter	2.95	2.66	2.12	1.59
130104CH	4.68" alum. washable filter	3.49	3.19	2.75	2.49

\* Size conversion chart – above

## Fan Power Cords: 24" Straight and Right-Angle

**Quantity SAVE**

**SALE**

• Cord type: SPT-1 (2) conductor black • Voltage rating: 300V • Temperature range: 60°C • Fits all terminal fans

Part No.	Description	Length	1	10	100	250
28564CH	Straight socket cord	24"	<del>\$.89</del> \$.82	\$.70	\$.56	\$.50
104192CH	90° angle socket cord	24"	.79	.71	.57	.43



28564CH

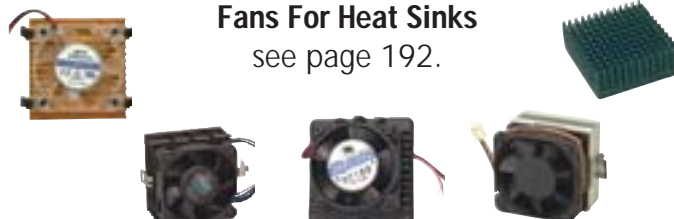


104192CH

**For Heat Sinks**  
see page 46.



**Fans For Heat Sinks**  
see page 192.





# 5 to 25-Watt Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

## Ultraminiature 5 to 20-Watt Power Supplies

- Working temp.: -10 to 60°C
- Free air cooling convection
- 100% full burn-in test
- Two year warranty
- UL/CUL/TUV/CE
- Universal AC input/full range
- Fixed switching frequency @ 100kHz
- High reliability, low-cost
- Short circuit/overload/over-voltage/over-temperature protection



### 5-Watt OFM-5000 Series

- Size: 2.28"L x 1.77"W x 0.83"H
- Inrush current: 20A@115VAC
- Pin-mount



### 15-Watt OFM-1500 Series

- Size: 2.76"L x 1.89"W x 0.83"H
- Inrush current: 25A@115VAC
- Pin-mount

### 10-Watt OFM-0100 Series

- Size: 2.56"W x 1.77"L x 0.83"H
- Inrush current: 25A@115VAC
- Pin-mount



### 20-Watt OFM-0200 Series

- Size: 3.50"L x 2.00"W x 0.78"H
- Inrush current: 25A@115VAC
- Chassis mount



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Jameco Part No.	Manufacturer Product No.	Output		Load Regulation	Line Regulation	Ripple & Noise (mV p-p)	Price		
		Voltage@Current (min-max)	Power				1	10	25
300281CH	OFM-5001	+5V@0-1A	5W	±2%	±0.5%	50	\$30.39	\$28.50	\$27.08
300409CH	OFM-5002	+12V@0-0.42A	5W	±1%	±0.3%	150	30.39	28.50	27.08
300417CH	OFM-5003	+15V@0-0.33A	5W	±1%	±0.3%	150	30.39	28.50	27.08
300425CH	OFM-5005	+24V@0-0.23A	5W	±0.5%	±0.2%	240	30.39	28.50	27.08
300433CH	OFM-0101	+5V@0-2A	10W	±2%	±0.5%	50	36.09	34.20	32.49
300441CH	OFM-0102	+12V@0-0.85A	10W	±1%	±0.3%	180	36.09	34.20	32.49
300450CH	OFM-0103	+15V@0-0.67A	10W	±1%	±0.3%	180	36.09	34.20	32.49
300468CH	OFM-0105	+24V@0-0.42A	10W	±0.5%	±0.2%	240	36.09	34.20	32.49
300476CH	OFM-1501	+5V@0-3A	15W	±2%	±0.5%	60	40.85	38.00	36.10
300484CH	OFM-1502	+12V@0-1.25A	15W	±1%	±0.3%	150	40.85	38.00	36.10
300492CH	OFM-1503	+15V@0-1.0A	15W	±1%	±0.3%	150	40.85	38.00	36.10
300505CH	OFM-1505	+24V@0-0.63A	15W	±0.5%	±0.2%	240	40.85	38.00	36.10
300513CH	OFM-0201	+5V@0-4.4A	20W	±2%	±0.5%	50	43.69	40.85	38.81
300521CH	OFM-0202	+12V@0-1.8A	20W	±1%	±0.3%	150	43.69	40.85	38.81
300530CH	OFM-0203	+15V@0-1.4A	20W	±1%	±0.3%	150	43.69	40.85	38.81
300548CH	OFM-0205	+24V@0-0.92A	20W	±0.5%	±0.2%	240	43.69	40.85	38.81

Enclosed Power Supplies  
on pages 156-163.



## 15 & 25-Watt Open Frame

### PSA15 & PSA25 Series: Single & Triple Outputs

- Load regulation: ±2.0%
- Line regulation: ±1.0%
- Universal input
- Isolation voltage: 3,000 VAC
- Voltage adjustment: 5% (PSA15 only)
- Inrush current: 30A @ 120VAC
- Temperature: 0° to +40°C
- One-year warranty
- Size: 4.33"L x 1.57"W x 0.91"H, except 230535CH 3.6"L x 2.5"W x 1.1"H



Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
229041CH	Phihong	PSA15LN3-050	+5V@0-3A	15W	90-264@47-63	50	UL/CUL/TUV/CE	\$17.95	\$16.95	\$16.19
229059CH	Phihong	PSA15LN3-120	+12V@0-1.25A	15W	90-264@47-63	120	UL/CUL/TUV/CE	17.95	16.95	16.19
229067CH	Phihong	PSA15LN3-240	+24V@0-0.63A	15W	90-264@47-63	240	UL/CUL/TUV/CE	16.95	16.40	15.84
230535CH	Phihong	PSA25L-301	+5V@0.2-2A; +12V@0.1-1A; -12V@0-0.3A	25W	90-264@47-63	50	UL/CUL/TUV/CE	23.49	21.15	18.99

\* Primary Output

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	25
189747CH	Tamura	79642191	+5V@1A; +12V@1A	17W	120/230@50-60	4.7x2.4x1.1	—	50	—	1.0	—	\$8.95	\$8.06	\$7.25
166967CH	Super Mac	U002512010	+5V@2.5A; +12V@1A	24.5W	100-240@50-60	3.7x2.5x1.2	—	50	—	1.0	UL/CSA/TUV	14.29	12.86	11.57

\* Primary Output

# 30 to 110-Watt **Medical** Switching AC-to-DC Power Supplies

## 30-Watt Open Frame, Low Leakage

### MPS-30 Series: Single Output

- 100% full load burn-in test
- 105°C output capacitor
- Universal AC input
- High-efficiency, low heat generation
- -10°C to + 50°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Load regulation:  $\pm 1.0\%$ , except 220978CH:  $\pm 2.0\%$
- Line regulation:  $\pm 0.5\%$ , except 220978CH & 220986CH:  $\pm 1.0\%$
- Inrush current: 35A@120VAC • Leakage current: 0.3mA@240V
- Three-year warranty • Size: 4.0"L x 2.59"W x 0.98"H
- Mounting holes: 3.74"L x 2.02"W x 0.12"Dia.
- Mating connectors: P/Ns 104723CH & 104432CH, pg 106



Call for LOWER PRICES on Larger Quantities

- Isolation voltage: 4000VAC
- 2.9 watts/in<sup>3</sup> maximum
- Weight: 0.3 lbs.

The Mean Well MPS-30 medical power supplies are low cost, high reliability open frame power supplies that feature a low leakage current of 0.3mA@240VAC. Other features of this open frame power supply are: universal input of 88-264VAC as well as 120-370VDC for battery-supported applications. Protections include short-circuit, overload, and over-voltage. They are UL and TUV approved, and carry a CE mark for use worldwide.

## 110-Watt Open Frame, Low Leakage

### NFS110-79xxP Series: Quad Outputs

- 100% full-load burn-in
- 110W with 20 CFM of air
- Leakage current: 0.1mA@240V
- Size: 7.0"L x 4.25"W x 1.8"H
- In-rush current: 17A@120VAC
- Two-year warranty
- Mounting holes: 6.6"L x 3.75"W x 0.156"Dia.
- Mating connectors: P/Ns 104723CH, 104766CH & 104432CH, pg 106
- 0°C to +70°C working temp. (see [www.Jameco.com](http://www.Jameco.com))
- Universal AC input
- 2.1 watts/in<sup>3</sup> maximum
- Voltage adjustment: 3%
- Isolation voltage: 4000VAC
- Line regulation:  $\pm 0.1\%$
- Weight: 1.3 lbs.



The NFS110-79xxP models have proven to be highly reliable and versatile for a wide range of communication and industrial applications, with a very high peak current capability on each output for drive and motor applications. These models have full medical safety approval to EN60601 and UL2601, and meet conducted emissions requirements of EN55022 level A. They are designed for use in low power medical, dental and laboratory applications.

Medical Table-Top Power Supplies & Wall Adapters on Page 172

## 45 & 65-Watt Open Frame, Low Leakage

### MPS-45 & MPS-65 Series: Single Output

- 100% full load burn-in test
- 105°C output capacitor
- Universal AC input
- High-efficiency, low heat generation
- Isolation voltage: 4000VAC
- 2.9 watts/in<sup>3</sup> max.
- Voltage adjustment: 10%
- -10°C to + 60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Leakage current: 0.3mA@240V
- Inrush current: 20A@120VAC
- Line regulation:  $\pm 1.0\%$
- Load regulation:  $\pm 2.0\%$ , except 221031CH, 221049CH, 221057CH, 221129CH, 221137CH, 221145CH:  $\pm 3.0\%$
- Soft-start circuit, limiting AC surge current
- Three-year warranty • Weight: 0.6 lbs.
- Size: MPS-45: 5.0"L x 3.0"W x 1.06"H; MPS-65: 5.0"L x 3.0"W x 1.65"H
- Mounting holes: 4.55"L x 2.55"W x 0.14"Dia.
- Mating connectors: P/Ns 104432CH and 104731CH, pg 106



The MeanWell MPS-45 & MPS-65 medical power supplies are low cost, high reliability open frame power supplies. Other features of these power supplies are: universal input of 88-264VAC, as well as 120-370VDC for battery-applications. Full rated power is available with 18CFM forced air convection applied. Protections include short-circuit, overload, and over-voltage.

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**SALE**

**Quantity SAVE**

**Lower \$\$\$**

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
220978CH	Mean Well	MPS-30-5	+5V@0-5A	25.0W	88-264@47-63	80	UL/CUL/TUV/CE	\$33.95	\$28.86	\$21.64
220986CH	Mean Well	MPS-30-12	+12V@0-2.5A	30.0W	88-264@47-63	120	UL/CUL/TUV/CE	33.95	30.56	27.50
220994CH	Mean Well	MPS-30-15	+15V@0-2A	30.0W	88-264@47-63	150	UL/CUL/TUV/CE	<del>\$33.95</del> 25.29	22.97	20.89
221006CH	Mean Well	MPS-30-24	+24V@0-1.2A	28.8W	88-264@47-63	240	UL/CUL/TUV/CE	33.95	30.56	27.50
221014CH	Mean Well	MPS-30-27	+27V@0-1.1A	29.7W	88-264@47-63	240	UL/CUL/TUV/CE	<del>\$33.95</del> 25.99	23.62	21.47
221022CH	Mean Well	MPS-30-48	+48V@0-0.6A	28.8W	88-264@47-63	240	UL/CUL/TUV/CE	<del>\$33.95</del> 26.15	23.74	21.59
221031CH	Mean Well	MPS-45-3.3	+3.3V@0-8A	26.4W	90-264@47-440	80	UL/CUL/TUV/CE	<del>\$34.95</del> 26.15	23.77	21.61
221049CH	Mean Well	MPS-45-5	+5V@0-8A	40.0W	90-264@47-440	100	UL/CUL/TUV/CE	34.95	29.71	22.28
221057CH	Mean Well	MPS-45-7.5	+7.5V@0-5.4A	40.5W	90-264@47-440	100	UL/CUL/TUV/CE	34.95	29.71	22.28
221065CH	Mean Well	MPS-45-12	+12V@0-3.7A	44.4W	90-264@47-440	100	UL/CUL/TUV/CE	34.95	29.71	22.28
221073CH	Mean Well	MPS-45-13.5	+13.5V@0-3.3A	44.6W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$34.95</del> 26.15	23.77	21.61
221081CH	Mean Well	MPS-45-15	+15V@0-3A	45.0W	90-264@47-440	100	UL/CUL/TUV/CE	34.95	29.71	22.28
221090CH	Mean Well	MPS-45-24	+24V@0-1.9A	45.6W	90-264@47-440	100	UL/CUL/TUV/CE	34.95	29.71	22.28
221102CH	Mean Well	MPS-45-27	+27V@0-1.7A	45.9W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$34.95</del> 25.85	23.47	21.33
221111CH	Mean Well	MPS-45-48	+48V@0-1A	48.0W	90-264@47-440	100	UL/CUL/TUV/CE	34.95	31.46	28.31
221129CH	Mean Well	MPS-65-3.3	+3.3V@0-12A	39.6W	90-264@47-440	80	UL/CUL/TUV/CE	<del>\$35.95</del> 27.15	24.64	22.40
221137CH	Mean Well	MPS-65-5	+5V@0-12A	60.0W	90-264@47-440	100	UL/CUL/TUV/CE	35.95	30.56	22.92
221145CH	Mean Well	MPS-65-7.5	+7.5V@0-8A	60.0W	90-264@47-440	100	UL/CUL/TUV/CE	35.95	32.36	29.12
221153CH	Mean Well	MPS-65-12	+12V@0-5.2A	62.4W	90-264@47-440	100	UL/CUL/TUV/CE	35.95	32.36	29.12
221161CH	Mean Well	MPS-65-13.5	+13.5V@0-4.7A	63.5W	90-264@47-440	100	UL/CUL/TUV/CE	33.95	28.86	21.64
221170CH	Mean Well	MPS-65-15	+15V@0-4.2A	63.0W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$35.95</del> 26.45	24.02	21.83
221188CH	Mean Well	MPS-65-24	+24V@0-2.7A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	35.95	30.56	22.92
221196CH	Mean Well	MPS-65-27	+27V@0-2.4A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$35.95</del> 26.25	23.82	21.65
221209CH	Mean Well	MPS-65-48	+48V@0-1.35A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	35.95	32.36	29.12
220222CH	Artesyn	NFS110-7901P	+5.1V@0-8; +12V@0-4.5A; -5V@0-0.5A; -12V@0-0.5A	110W	90-253@47-440	50	UL/CSA/VDE/CE	<del>\$404.49</del> 88.89	84.49	80.25
220214CH	Artesyn	NFS110-7902P	+5.1V@0-8A; +12V@0-4.5A; +24V@0-3.5A; -12V@0-0.5A	110W	90-253@47-440	50	UL/CSA/VDE/CE	<del>\$98.79</del> 88.89	84.49	80.25

\* Primary Output

Blue Part No. = Limited Quantity Available

Color Code Legend			
New	Sale	Lower\$	QtySave

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# 25 to 45-Watt Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

## 25-Watt Open Frame

### NLP-25 Series: Single & Triple Outputs

- 100% full-load burn-in
- 3.3 watts/in<sup>2</sup> maximum
- Load regulation:  $\pm 2.0\%$
- 0°C to +50°C working temp. (see [www.Jameco.com](http://www.Jameco.com))
- Size: 4.0"L x 2.07"W x 0.91"H
- Universal AC input
- Line regulation:  $\pm 2.0\%$
- Two-year warranty



## 40-Watt Open Frame

### NFS-40 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 50 watts with 20 CFM of air
- No minimum load required
- Load regulation:  $\pm 2.0\%$
- Line regulation:  $\pm 0.2\%$
- Inrush current: 12A@120VAC
- 0° to +70°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Voltage adjustment: 5%
- Mating connectors: P/Ns 104432CH & 104731CH, pg 106
- Size: 5.0"L x 3.0"W x 1.2"H
- Two-year warranty



## 25-Watt Open Frame

### PS-25 & PD-25 Series: Single & Dual Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Size: 4.20"L x 2.40"W x 1.10"H
- -10°C to +60°C working temp (see [www.Jameco.com](http://www.Jameco.com))
- Universal AC input
- Inrush current: 40A @ 120VAC
- Two-year warranty



## 45-Watt Open Frame

### PSA45 Series: Single, Triple & Quad Outputs

- Load regulation:  $\pm 2.0\%$
- Inrush current: 20A @ 120VAC
- Size: 5.0"L x 3.0"W x 1.2"H
- Line regulation:  $\pm 2.0\%$
- Temperature: 0° to +50°C
- Weight: 0.9 lbs.
- Universal input
- One-year warranty

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Enclosed Power Supplies on pages 156-163.

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**SALE**

**Quantity SAVE**

**Lower \$\$\$**

			Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
Jameco Part No.	Manufacturer	Manufacturer Product Number	Voltage@Current (min-max)	Power				1	10	25
218481CH	Artesyn	NLP25-7612	+12V@0-2.08A	25.0W	90-264@47-440	120	UL/CSA/VDE/CE	\$36.19	\$30.76	\$27.68
218499CH	Artesyn	NLP25-7624	+24V@0-1.04A	25.0W	90-264@47-440	150	UL/CSA/VDE/CE	36.19	30.76	27.68
218501CH	Artesyn	NLP25-7608	+5V@0.2-2A; +12V@0.1-0.8A; -12V@0-0.1A	20.8W	90-264@47-440	50	UL/CSA/VDE/CE	31.29	28.45	25.87
212361CH	Mean Well	PS-25-3.3	+3.3V@0-5A	16.5W	85-264@47-63	80	UL/CUL/TUV/CE	17.95	16.95	16.19
212353CH	Mean Well	PS-25-5	+5V@0-5A	25.0W	85-264@47-63	80	UL/CUL/TUV/CE	17.95	16.95	16.19
148603CH	Mean Well	PS-25-12	+12V@0-2.1A	25.2W	85-264@47-63	100	UL/CUL/TUV/CE	18.95	17.95	17.19
216768CH	Mean Well	PS-25-15	+15V@0-1.7A	25.5W	85-264@47-63	100	UL/CUL/TUV/CE	16.95	16.10	15.30
212345CH	Mean Well	PS-25-24	+24V@0-1A	24.0W	85-264@47-63	240	UL/CUL/TUV/CE	18.95	17.95	17.19
212311CH	Mean Well	PD-2505	+5V@0.1-3A; -5V@0.1-2.5A	25.0W	85-264@47-63	50	UL/CUL/TUV/CE	19.95	16.96	12.72
212337CH	Mean Well	PD-25A	+5V@0.2-2.5A; +12V@0.1-1.5A	25.0W	85-264@47-63	50	UL/CUL/TUV/CE	18.95	17.95	17.15
212329CH	Mean Well	PD-25B	+5V@0.2-2A; +24V@0.1-1A	25.2W	85-264@47-63	50	UL/CUL/TUV/CE	19.95	18.95	17.95
148689CH	Mean Well	PD-2512	+12V@0.1-1.2A; -12V@0.1-1A	24.0W	85-264@47-63	50	UL/CUL/TUV/CE	19.95	18.95	17.95
218510CH	Artesyn	NFS40-7605	+5.1V@0-6A	30.6W	85-264@47-440	100	UL/CSA/VDE/CE	\$40.15 37.49	34.06	30.96
218528CH	Artesyn	NFS40-7612	+12V@0-3.3A	39.6W	85-264@47-440	120	UL/CSA/VDE/CE	\$40.15 37.49	34.06	30.96
218536CH	Artesyn	NFS40-7624	+24V@0-1.6A	38.4W	85-264@47-440	240	UL/CSA/VDE/CE	\$40.15 37.49	34.06	30.96
190086CH	Artesyn	NFS40-7608	+5V@0-3A; +12V@0-2A; -12V@0-0.35A	43.2W	85-264@47-440	50	UL/CSA/VDE/CE	46.39	41.75	37.55
218552CH	Artesyn	NFS40-7610	+5V@0-3A; +15V@0-2A; -15V@0-0.35A	50.2W	85-264@47-440	50	UL/CSA/VDE/CE	46.39	41.75	37.55
229075CH	Phihong	PSA45-050	+5V@0-8A	40.0W	90-264@47-63	50	UL/CSA/TUV/CE	27.95	25.49	23.04
229091CH	Phihong	PSA45-120	+12V@0-4A	48.0W	90-264@47-63	120	UL/CSA/TUV/CE	27.95	23.76	22.73
229112CH	Phihong	PSA45-240	+24V@0-2A	48.0W	90-264@47-63	240	UL/CSA/TUV/CE	27.95	25.49	23.04
229121CH	Phihong	PSA4531	+5V@0-4A; +12V@0-1.5A; -12V@0-0.5A	44.0W	90-264@47-63	50	UL/CSA/TUV/CE	31.95	28.79	25.89
229139CH	Phihong	PSA4534	+5V@0-4A; +15V@0-1.2A; -15V@0-0.5A	45.5W	90-264@47-63	50	UL/CSA/TUV/CE	29.95	27.38	24.80
229147CH	Phihong	PSA4541	+5V@0-3A; +12V@0-2A; -5V@0-0.5A; -12V@0-0.5A	47.5W	90-264@47-63	50	UL/CSA/TUV/CE	29.95	27.38	24.80

\* Primary Output

### Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	25
210841CH	Power-One	MAP42-1005	+5V@0-8A	40.0W	120-240@50-60	5.0x3.0x1.3	4.6x2.6x0.16	50	1.0	0.2	UL/CSA/TUV/CE	\$19.95	\$16.96	\$12.72
168225CH	Converter Concepts	STRC0006	+5V@2.7A; +12V@1.2A; +35V@.35A; -5V@.18A	30.0W	85-135@57-63	9.0x2.0x1.6	—	—	—	—	UL	5.95	5.35	4.79

\* Primary Output

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# 45 to 65-Watt Open-Frame Switching AC-to-DC Power Supplies

## 45-Watt Open Frame

### PS-45, PD-45 & PT-45 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Line regulation:  $\pm 1.0\%$
- Size: 5.0"L x 3.0"W x 1.06"H
- Universal AC input
- Voltage adjustment: 10%
- Load regulation:  $\pm 3.0\%$  (except 213727CH/213719CH/213701CH:  $\pm 2.0\%$ )
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Two-year warranty
- Inrush current: 20A@120VAC



## 50-Watt Open Frame

### LPS-50 Series: Single Output

- 100% full burn-in
- Short circuit, overload, over-voltage protection
- LED power indicator
- Inrush current: 25A@115VAC
- Built-in remote ON-OFF
- Universal AC input
- Voltage adjustment: 10%
- Line regulation:  $\pm 1.0\%$
- Weight: 0.5 lbs.
- Power density: 3.32 watts/in<sup>3</sup>
- Input voltage: 90-264VAC@47-63Hz, 127-370VDC
- Load regulation:  $\pm 2.0\%$  (LPS-50-12);  $\pm 1.0\%$  (LPS-50-24)
- Working temperature: -20 to +70C
- Size: 7.7"L x 2.2"W x 0.9"H
- Two-year warranty

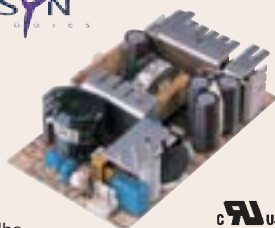
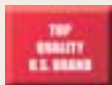
Enclosed Power Supplies  
on pages 156-163.



## 65-Watt Open Frame

### NLP65-76 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 75 watts with 20 CFM of air
- Load regulation:  $\pm 2.0\%$
- Line regulation:  $\pm 2.0\%$
- Inrush current: 17A@120VAC
- Two-year warranty
- Size: 5.0"L x 3.0"W x 1.26"H
- 0° to +70°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Weight: 0.6 lbs.



## 65-Watt Open Frame

### PS-65, PD-65 & PT-65 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- Voltage adjustment: 10%
- Line & load regulation:  $\pm 1.0$  to  $\pm 4.0\%$  (see [www.Jameco.com](http://www.Jameco.com))
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Inrush current: 20A@120VAC
- Two-year warranty
- Size: 5.0"L x 3.0"W x 1.65"H
- Universal AC input
- 105°C output capacitor
- Weight: 0.6 lbs.



## 65-Watt Open Frame with Power Factor Correction

### NLP65-96 Series: Single & Triple Outputs

- 100% full-load burn-in
- No minimum load required
- Line regulation:  $\pm 2.0\%$
- Two-year warranty
- Universal AC input
- 75 watts with 20 CFM of air
- Inrush current: 17A@120VAC
- Weight: 0.6 lbs.
- Power Factor Correction
- Load regulation:  $\pm 2.0\%$
- 0° to +70°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Size: 5.0"L x 3.0"W x 1.26"H



Enclosed Power Supplies  
on pages 156-163.

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Lower \$\$\$ Quantity SAVE

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
217331CH	Mean Well	PS-45-5	+5V@0-8A	40.0W	90-264@47-440	100	UL/CUL/TUV/CE	\$22.95	\$19.51	\$14.63
213727CH	Mean Well	PS-45-12	+12V@0-3.7A	44.4W	90-264@47-440	100	UL/CUL/TUV/CE	27.95	21.99	19.85
213719CH	Mean Well	PS-45-24	+24V@0-1.9A	45.6W	90-264@47-440	100	UL/CUL/TUV/CE	27.95	21.99	19.85
213701CH	Mean Well	PS-45-48	+48V@0-1A	48.0W	90-264@47-440	100	UL/CUL/TUV/CE	\$21.95 17.29	15.73	14.30
194861CH	Mean Well	PD-45A	+5V@0.4-3.2A; +12V@0.2-2	40.0W	90-264@47-440	50	UL/CUL/TUV/CE	24.95	22.46	20.21
194870CH	Mean Well	PD-45B	+5V@0.4-3.2A; +24V@0.2-1.2A	44.8W	90-264@47-440	50	UL/CUL/TUV/CE	24.95	22.46	20.21
88401CH	Mean Well	PT-45B	+5V@0.4-3A; +12V@0.2-2A; -12V@0-0.3A	45.0W	90-264@47-440	50	UL/CUL/TUV/CE	29.95	23.09	20.89
252401CH	Mean Well	LPS-50-12	+12V@0-4.2A	50.4W	90-264@47-63	80	UL/CUL/TUV/CE	28.95	23.65	20.95
252620CH	Mean Well	LPS-50-24	+24V@0-2.1A	50.4W	90-264@47-63	80	UL/CUL/TUV/CE	28.95	23.65	20.95
218561CH	Artesyn	NLP65-7605	+5V@0-13A	65.0W	85-264@47-63	50	UL/CUL/CSA/VDE/CE	\$52.99 49.49	44.96	40.87
218579CH	Artesyn	NLP65-7612	+12V@0-5.4A	64.8W	85-264@47-63	120	UL/CUL/CSA/VDE/CE	52.65	47.85	43.50
218587CH	Artesyn	NLP65-7608	+5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A	75.3W	85-264@47-63	50	UL/CUL/CSA/VDE/CE	52.95	48.13	43.76
201937CH	Mean Well	PS-65-5	+5V@0-12A	60.0W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.46	19.09
148638CH	Mean Well	PS-65-12	+12V@0-5.2A	62.4W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
216750CH	Mean Well	PS-65-15	+15V@0-4.2A	63.0W	90-264@47-440	100	UL/CUL/TUV/CE	24.95	21.21	15.91
148646CH	Mean Well	PS-65-24	+24V@0-2.7A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
201945CH	Mean Well	PS-65-27	+27V@0-2.4A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
201953CH	Mean Well	PS-65-48	+48V@0-1.35A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
194888CH	Mean Well	PD-65A	+5V@0.4-7A; +12V@0.2-3.2A	61.1W	90-264@47-440	50	UL/CUL/TUV/CE	34.95	26.39	23.09
194896CH	Mean Well	PD-65B	+5V@0.4-3.5A; +24V@0.2-2A	65.5W	90-264@47-440	50	UL/CUL/TUV/CE	34.95	26.39	23.09
216733CH	Mean Well	PT-65B	+5V@0.4-5.5A; +12V@0.2-2.5A; -12V@0-0.5A	63.5W	90-264@47-440	50	UL/CUL/TUV/CE	36.95	28.59	25.29
216725CH	Mean Well	PT-65C	+5V@0.4-5.5A; +15V@0.2-2A; -15V@0-0.5A	65.0W	90-264@47-440	50	UL/CUL/TUV/CE	36.95	28.59	25.29
218595CH	Artesyn	NLP65-9612	+12V@0-5.4A	64.8W	85-264@47-63	120	UL/CUL/CSA/VDE/CE	61.49	55.90	50.82
218616CH	Artesyn	NLP65-9608	+5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A	75.3W	85-264@47-63	50	UL/CUL/CSA/VDE/CE	61.45	55.87	50.79

\* Primary Output

Blue Part No. = Limited Quantity Available

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153

# 65 to 110W Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

## 75-Watt Open Frame

### LPS-75 Series: Single Outputs

- 100% full-load burn-in
- Universal AC input
- Built-in remote ON/OFF
- Line regulation:  $\pm 1.0\%$
- Load regulation: (244718CH)  $\pm 1.0\%$ ; (244726CH)  $\pm 2.0\%$
- Voltage adjustment: 10%
- Inrush current: 24A@120VAC
- -20°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Two-year warranty • Weight: 0.5 lbs. • Size: 8.74"L x 2.16"W x 1.18"H



## 100-Watt Open Frame

### LPS-100 Series: Single Output

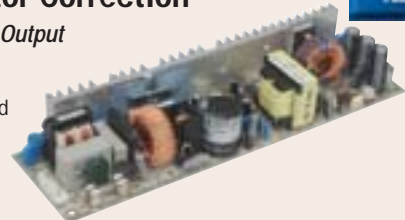
- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 105°C output capacitor
- Load regulation:  $\pm 1.5\%$ , except 173462CH:  $\pm 0.5\%$
- Line regulation:  $\pm 0.5\%$
- Voltage adjustment: 10%
- Inrush current: 30A@120VAC
- Three-year warranty • Weight: 0.8 lbs. • Size: 8.74"L x 2.44" x 1.25"W
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))



## 100-Watt Open Frame With Power Factor Correction

### LPP-100 Series: Single Output

- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 4.4 watts/in<sup>3</sup> maximum
- 105°C output capacitor
- Power Factor Correction
- Load regulation:  $\pm 0.5\%$
- Line regulation:  $\pm 0.5\%$
- Isolation voltage: 3000VAC
- Voltage adjustment: 10%
- Three-year warranty • Weight: 0.8 lbs. • Size: 8.75"L x 2.44"W x 1.25"H
- Mounting holes: 8.34"L x 2.04"W x 0.13"Dia.
- Mating connectors: P/Ns 215950CH & 215976CH, pg 106
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))



## 110-Watt Open Frame With Power Factor Correction

### NLP110 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- 6 watts/in<sup>3</sup> maximum
- 105°C output capacitor
- Load regulation:  $\pm 2.0\%$
- Line regulation:  $\pm 2.0\%$
- Inrush current: 18A@120VAC
- Isolation voltage: 3000VAC
- Voltage adjustment: 3%
- Two-year warranty
- Size: 6.5"L x 3.0"W x 1.26"H
- Mating connectors: P/Ns 104432CH & 2 ea. 104731CH, pg 106
- 0°C to +70°C working temp. (see [www.Jameco.com](http://www.Jameco.com))



Enclosed Power Supplies on pages 156-163.

**SALE**

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**Quantity SAVE**

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Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
244718CH	Mean Well	LPS-75-12	+12V@0-6.8A	74.4W	90-264@47-63	100	UL/CUL/TUV/CE	\$34.95	\$33.20	\$31.54
244726CH	Mean Well	LPS-75-24	+24V@0-3.5A	76.8W	90-264@47-63	120	UL/CUL/TUV/CE	<del>\$38.95</del> 34.95	29.71	<del>(22.28)</del>
173471CH	Mean Well	LPS-100-12	+12V@0-8.4A	100.8W	88-264@47-63	100	UL/CUL/TUV/CE	52.95	48.39	42.89
173462CH	Mean Well	LPS-100-24	+24V@0-4.2A	100.8W	88-264@47-63	150	UL/CUL/TUV/CE	52.95	48.39	42.89
216709CH	Mean Well	LPS-100-48	+48V@0-2.1A	100.8W	88-264@47-63	200	UL/CUL/TUV/CE	52.95	45.01	<del>(33.76)</del>
216688CH	Mean Well	LPP-100-12	+12V@0-8.5A	102.0W	85-264@47-63	100	UL/CUL/TUV/CE	57.39	51.65	46.49
216670CH	Mean Well	LPP-100-15	+15V@0-6.7A	100.5W	85-264@47-63	100	UL/CUL/TUV/CE	<del>\$45.19</del> 38.29	34.78	31.62
204610CH	Mean Well	LPP-100-24	+24V@0-4.2A	100.8W	85-264@47-63	150	UL/CUL/TUV/CE	64.95	55.21	<del>(41.41)</del>
216653CH	Mean Well	LPP-100-48	+48V@0-2.1A	100.8W	85-264@47-63	250	UL/CUL/TUV/CE	<del>\$45.85</del> 39.39	35.83	32.57
218915CH	Artesyn	NLP110-9605	+5V@0.5-15A	75.0W	90-264@47-63	50	UL/CUL/CSA/VDE	<del>\$73.09</del> 59.49	54.11	49.19
218923CH	Artesyn	NLP110-9612	+12V@0.3-6.4A	76.8W	90-264@47-63	120	UL/CUL/CSA/VDE	<del>\$80.85</del> 70.15	63.76	57.97
218931CH	Artesyn	NLP110-9624	+24V@0.2-3.2A	76.8W	90-264@47-63	240	UL/CUL/CSA/VDE	<del>\$80.69</del> 69.99	64.51	58.65
218940CH	Artesyn	NLP110-9693	+3.3V@0.8-8A; +5V@0.5-13A; +12V@0-0.65A	110.0W	90-264@47-63	50	UL/CUL/CSA/VDE	<del>\$80.69</del> 69.99	64.51	58.65
218958CH	Artesyn	NLP110-9608	+5V@0.2-13A; +12V@0.2-6.5A; -12V@0-0.65A	110.0W	90-264@47-63	120	UL/CUL/CSA/VDE	<del>\$88.95</del> 87.89	79.88	72.62

\* Primary Output

**SALE**

Special Offers at Great Savings – 90-Day Warranty

**Quantity SAVE**

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	25
169068CH	Autec	UPS65-1051	+5V@0.2-13A	65.0W	115/230@50-60	6.0x3.5x1.5	4.8x3.2x0.16	50	1.0	0.5	UL/CSA/VDE	<del>\$44.95</del> \$4.89	\$4.44	\$4.03
237024CH	Lite-On	PA-1101-1	+12V@2-8.5A	102.0W	85-264@47-63	6.0x4.0x1.3	—	1200	10.0	1.0	UL/CUL/TUV/CE	<del>\$39.95</del> 19.95	16.96	<del>(12.72)</del>
203326CH	EOS	VLT100-1004†	+48V@0.2-2.1A	100.0W	100-240@50-60	5.0x3.0x1.0	4.6x2.6x0.16	480	3.0	0.3	UL/CUL/VDE/CE	27.95	23.75	<del>(17.85)</del>
171731CH	Delta	DPS-60MPB	+3.3V@0.8-8A; +5V@1-9A;	65.0W	90-270@47-63	5.8x3.3x1.4	—	50	2.0	2.0	UL/CUL/TUV	6.95	5.89	<del>(4.45)</del>
196824CH	Encad	U006612010	+5.2V@3A; +24V@2A	65.0W	90-250@50-60	6.3x3.9x1.5	—	—	—	—	UL/CUL/TUV	15.95	13.56	<del>(10.17)</del>
235088CH	Artesyn Power	NLP65-7629	+5V@0-7A; +12V@0-2.5A	65.0W	85-264@47-63	5.0x3.0x1.3	4.6x2.6x0.16	50	2.0	2.0	UL/CUL/CSA/CE	28.35	25.75	23.45
226211CH	Phihong	PSA-60-302	+5V@6A; +12V@1.2A; -12V@1.2A	60.0W	100-240@50-60	5.0x3.0x1.6	4.5x2.5x0.15	50	2.0	2.0	UL/CSA/VDE	29.95	25.46	<del>(19.09)</del>
215706CH	Mean Well	PT-65D	+5V@0.5-4A; +12V@0.2-2A; +24V@0.2-1A	65.0W	90-264@47-440	5.0x3.0x1.5	4.6x2.6x0.15	50	2.0	1.0	UL/CUL/TUV/CE	24.95	22.45	20.19
229850CH	IPD Power	SRW-65-3003	+5V@5A; +15V@3.5A; -15V@1A	65.0W	85-264@47-63	6.0x4.0x1.1	5.7x3.5x0.15	50	1.0	—	UL/CUL/TUV/CE	22.95	19.51	<del>(14.63)</del>
202876CH	Power-One	MAP80-4003	+5V@14A; +15V@3.5A; -5V@1A; -15V@1A	80.0W	100/230@47-63	7.2x4.3x1.8	6.7x3.2x0.17	50	1.0	0.2	UL/CSA/TUV/CE	19.95	16.96	16.54

\* Primary Output

† Power Factor Correction



# 110 to 350W Open-Frame Switching AC-to-DC Power Supplies

## 110-Watt Open Frame

### NFS110-76 Series: Single & Quad Outputs

- 100% full-load burn-in
- 2.8 watts/in<sup>2</sup> maximum
- Inrush current: 35A@120VAC
- Size: 7.0"L x 4.25"W x 1.8"H
- Mating connectors: P/Ns 104723CH, 104766CH & 104432CH, pg 106
- Universal AC input
- Load regulation:  $\pm 2.0\%$
- Isolation voltage: 3000VAC
- Weight: 1.3 lbs.

- 110W with 20 CFM of air
- Line regulation:  $\pm 0.1\%$
- Leakage current: 0.2mA@240V
- Mounting holes: 6.6"L x 3.75"W x 0.16"Dia.
- 0°C to +70°C working temp. (see [www.Jameco.com](http://www.Jameco.com))
- Voltage adjustment: 3%
- Two-year warranty



## 125-Watt Open Frame With Power Factor Correction

- 100% full-load burn-in
- Leakage current: <2mA@240V
- Load regulation:  $\pm 1.0\%$
- -40° to +85°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Universal AC input/full range
- Inrush current: 40A@230VAC (max.)
- Line regulation:  $\pm 0.5\%$
- Size: 5.0"L x 2.4"W x 1.4"H

### PPS-125 Series: Single Output

### PPT-125 Series: Triple Output

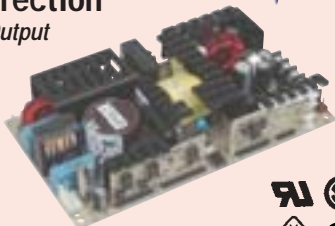
- Load regulation:  $\pm 3.0\%$
- -20° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))



## 150-Watt Open Frame With Power Factor Correction

### NLP150 Series: Single & Quad Output

- Parallel operation (current sharing)
- Universal AC input
- 100% full-load burn-in
- Line regulation:  $\pm 2.0\%$
- Load regulation:  $\pm 2.0\%$
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 1mA@240V
- Mating connectors: P/N 104432CH, pg 106 & 103587CH, pg 120
- 0° to +70°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Size: 6.8"L x 3.8"W x 1.26"H
- Two-year warranty



## 150-Watt Open Frame With Power Factor Correction

### LPP-150 Series: Single Output

- 100% full-load burn-in
- Leakage current: 3.5mA@240V
- Voltage adjustment: 10%
- Line regulation:  $\pm 0.5\%$
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- 105°C output capacitor
- Load regulation: 213680CH:  $\pm 1.0\%$ ; 213671CH & 216645CH:  $\pm 0.5\%$
- Mating connectors: P/N 215950CH & 215968CH, pg 105
- -10°C to +60°C working temp. (see [www.Jameco.com](http://www.Jameco.com))
- Size: 8.74"L x 2.95"W x 1.61"H
- Auto-switch AC input
- Three-year warranty



Other Versions Available: Call 800-831-4242

Enclosed Power Supplies on pages 156-163.

**SALE**

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**Quantity SAVE**

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
218982CH	Artesyn	NFS110-7612	+12V@0-7A	84.0W	85-264@47-440	120	UL/CUL/CSA/VDE/CE	<del>\$93.99</del> \$88.79	\$80.68	\$73.35
218974CH	Artesyn	NFS110-7624	+24V@0-3.5A	84.0W	85-264@47-440	240	UL/CUL/CSA/VDE/CE	<del>\$93.99</del> \$88.79	80.68	73.35
220231CH	Artesyn	NFS110-7604	+5.1V@0-8A; +15V@0-4A; -5V@0-0.5A; -15V@0-0.5A	110.6W	85-264@47-440	50	UL/CUL/CSA/VDE/CE	93.99	85.43	77.66
301428CH	Mean Well	PPS-125-24	+24V@0-5.2A	124.8W	90-264@47-63	150	UL/CUL/TUV/CE	93.99	79.84	74.45
301452CH	Mean Well	PPS-125-27	+27V@0-4.6A	124.2W	90-264@47-63	150	UL/CUL/TUV/CE	93.99	79.84	74.45
301479CH	Mean Well	PPS-125-48	+48V@0-2.6A	124.8W	90-264@47-63	250	UL/CUL/TUV/CE	93.99	79.84	74.45
301487CH	Mean Well	PPT-125B	+5V@1-14.4A; +12V@3-3.8A; -12V@0.05-0.63A	124.5W	90-264@47-63	100	UL/CUL/TUV/CE	103.55	79.86	74.45
301495CH	Mean Well	PPT-125C	+5V@1-13.8A; +15V@2.5-3.1A; -15V@0.05-0.63A	125.1W	90-264@47-63	100	UL/CUL/TUV/CE	103.55	79.86	74.45
218991CH	Artesyn	NLP150L-96S3	+3.3V@1-22A	72.6W	90-264@47-63	50	UL/CSA/VDE/CE	<del>\$85.55</del> 73.99	67.22	61.11
219011CH	Artesyn	NLP150L-96S5	+5.1V@1-22A	112.2W	90-264@47-63	50	UL/CSA/VDE/CE	<del>\$85.55</del> 73.95	67.22	61.11
219002CH	Artesyn	NLP150L-96S8	+24V@0.15-4.6A	110.4W	90-264@47-63	240	UL/CSA/VDE/CE	<del>\$90.69</del> 81.75	74.28	67.53
219029CH	Artesyn	NLP150L-96Q5366	+3.3V@0.5-10A; +5.1V@1.5-20A; +12V@0-2A; +12V@0-0.65A	120.0W	90-264@47-63	50	UL/CSA/VDE/CE	<del>\$85.55</del> 73.95	67.22	61.11
213680CH	Mean Well	LPP-150-12	+12V@0-12.5A	150.0W	85-264@47-63	100	UL/CUL/TUV/CE	71.95	61.16	(45.87)
213671CH	Mean Well	LPP-150-24	+24V@0-6.3A	150.0W	85-264@47-63	150	UL/CUL/TUV/CE	71.95	53.89	47.29
216645CH	Mean Well	LPP-150-48	+48V@0-3.2A	153.6W	85-264@47-63	250	UL/CUL/TUV/CE	71.95	61.16	(45.87)

\* Primary Output

### Special Offers at Great Savings – 90-Day Warranty

**Quantity SAVE**

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	25
354925CH	Philhong	PSF151-240C	+24VDC@6A	150.0W	90-264@47-63	8.0x4.2x1.5	—	240	3.0	0.5	UL/CUL/TUV/CE	\$39.95	\$35.95	\$32.36
196795CH	Cherokee	QP2A2-1A-A	+5V@40A; +12V@2.5A	230.0W	115/230@50-60	10.0x4.3x2.5	7.5x3.0x0.15	50	0.25	0.25	TUV	14.95	12.71	(9.53)
204581CH	Digital Pwr	UP300-201	+5V@1-40A; +12V@0.2-12A	300.0W	90-250@47-63	8.0x4.5x2.0	7.6x3.2x0.10	50	1.0	0.2	UL/CUL/CSA/TUV/CE	18.69	17.78	16.89
220193CH	Cherokee	MQT154A1†	+5V@40A; +5V@26A; +12V@6A; -12V@1A	150.0W	100-240@47-63	8.0x4.3x1.5	6.4x2.5x0.13	—	—	—	UL/CSA	28.95	23.19	(17.39)
196701CH	Astec	NTQ123	+3.3V@0-25A; +5V@2-24A; +12V@0-2A; -12V@0-1A	120.0W	85-264@47-63	7.0x4.0x1.5	—	50	—	—	UL/CSA/VDE/CE	28.95	25.95	19.95
211297CH	Power-One	MAP110-4300†	+3.3V@15A; +5V@8A; +12V@1A; -12V@1A	110.0W	85-264@47-63	7.0x4.3x2.0	6.5x2.8x0.17	30	0.7	0.3	UL/CSA/TUV/CE	<del>\$24.95</del> 9.95	8.46	(6.34)
210905CH	Lambda	WA305-00-03	+5V@50A; +12V@10A; +24V@4A; -5.2V@4A; -12V@4A	300.0W	85-264@45-440	11.9x5.0x1.8	8.1x2.5x0.16	50	1.0	0.2	UL/CSA/CE	49.95	44.96	40.46
196461CH	TODD	MAX3541205AC	+5V@50A; +12V@12A; -5V@2A; -12V@4A	350.0W	115/230@50-60	9.0x5.0x2.5	6.5x3.9x0.08	50	1.0	1.0	TUV	47.95	40.79	(30.59)

♣ Pull = Extra Savings \* Primary Output † 8" power cable included ⚙ Blue Part No. = Limited Quantity Available

Color Code Legend			
New	Sale	Lower\$	QtySave

Order 24/7 Toll Free 1-800-831-4242



## 25-Watt Enclosed

### RS-25 Series: Single Output

- New smaller design: 3.0" x 2" x 1.1"
- 3.66 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- Short circuit / overload / over-voltage protection
- 105°C output capacitors
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- High operating temperature up to 70°C
- Mating Connector: 103587CH, pg 120



• Three-year warranty

## 25-Watt Enclosed

### S-25 Series: Single Output

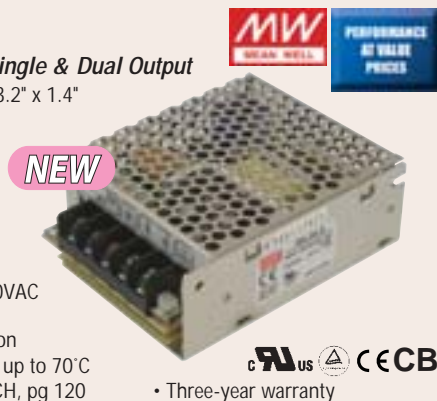
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- No minimum load required
- 1.2 watts/in<sup>3</sup> maximum
- Voltage adjustment: 10%
- 105°C output capacitor
- Mating connector: 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222121CH, 222156CH, 222172CH & 222164CH; see [www.Jameco.com](http://www.Jameco.com) for specifications
- Two-year warranty



## 35-Watt Enclosed

### RS-35 & RD-35 Series: Single & Dual Output

- New smaller design: 3.9" x 3.2" x 1.4"
- 2 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- Short circuit / overload / over-voltage protection
- 105°C output capacitors
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- High operating temperature up to 70°C
- Mating Connector: 103587CH, pg 120



• Three-year warranty

## 40-Watt Enclosed

### S-40 & T-40 Series: Single & Triple Output

- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- 105°C output capacitor
- 1.6 watts/in<sup>3</sup> maximum
- Voltage adjustment: 10%
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222121CH, 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com))
- Two-year warranty



Open-Frame Power Supplies on pages 150-155.

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Call for LOWER PRICES on Larger Quantities

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
323281CH	Mean Well	RS-25-5	+5V@0-5A	25.0W	80	1	0.5	UL/CUL/TUV/CE/CB	\$27.55	\$23.75	\$22.59
323299CH	Mean Well	RS-25-12	+12V@0-2.1A	25.2W	120	0.5	0.5	UL/CUL/TUV/CE/CB	27.55	23.75	22.59
323301CH	Mean Well	RS-25-15	+15V@0-1.7A	25.5W	120	0.5	0.5	UL/CUL/TUV/CE/CB	27.55	23.75	22.59
323310CH	Mean Well	RS-25-24	+24V@0-1.1A	26.4W	120	0.5	0.5	UL/CUL/TUV/CE/CB	27.55	23.75	22.59
123246CH	Mean Well	S-25-5	+5V@0-5A	25.0W	50	1	0.5	UL/TUV/CE	39.95	32.10	28.90
123254CH	Mean Well	S-25-12	+12V@0-2.1A	25.2W	100	0.5	0.5	UL/TUV/CE	39.95	32.10	28.90
123262CH	Mean Well	S-25-15	+15V@0-1.7A	25.5W	100	0.5	0.5	UL/TUV/CE	39.95	32.10	28.90
123271CH	Mean Well	S-25-24	+24V@0-1.1A	26.4W	100	0.5	0.5	UL/TUV/CE	39.95	32.10	28.90
323328CH	Mean Well	RS-35-5	+5V@0-7A	35.0W	80	1	0.5	UL/CUL/TUV/CE/CB	34.25	28.55	27.15
323336CH	Mean Well	RS-35-12	+12V@0-3A	36.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	34.25	28.55	27.15
323344CH	Mean Well	RS-35-15	+15V@0-2.4A	36.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	34.25	28.55	27.15
323352CH	Mean Well	RS-35-24	+24V@0-1.5A	36.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	34.25	28.55	27.15
323361CH	Mean Well	RD-35A	+5V@0.3-4A; +12V@0.2-1A	32.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	37.05	32.35	30.75
323379CH	Mean Well	RD-35B	+5V@0.3-4A; +24V@0.2-1.3A	51.2W	80	0.5	0.5	UL/CUL/TUV/CE/CB	37.05	32.35	30.75
123289CH	Mean Well	S-40-5	+5V@0-8A	40.0W	75	1	0.5	UL/CUL/TUV/CE/CB	44.95	38.60	34.70
123297CH	Mean Well	S-40-12	+12V@0-3.5A	42.0W	100	0.5	0.5	UL/CUL/TUV/CE/CB	44.95	38.60	34.70
202139CH	Mean Well	S-40-15	+15V@0-2.8A	42.0W	100	0.5	0.5	UL/CUL/TUV/CE/CB	44.95	38.60	34.70
123318CH	Mean Well	S-40-24	+24V@0-1.8A	43.0W	100	0.5	0.5	UL/CUL/TUV/CE/CB	44.95	38.60	34.70
201988CH	Mean Well	T-40A	+5V@0.6-3A; +12V@0.2-2A; -5V@0.1-0.5A	41.5W	100	0.5	0.5	CSA/CE	49.95	42.46	31.84
201996CH	Mean Well	T-40B	+5V@0.6-3A; +12V@0.2-2A; -12V@0.1-0.5A	45.0W	100	0.5	0.5	CSA/CE	49.95	42.10	37.90
202008CH	Mean Well	T-40C	+5V@0.6-3A; +15V@0.2-1.5A; -15V@0.1-0.5A	45.0W	100	0.5	0.5	CSA/CE	49.95	42.10	37.90

\* Primary Output



## Jameco's Got the Docs

We offer free technical documents for most of the products we carry.  
Find them easily on the product spec page @ [www.Jameco.com](http://www.Jameco.com).

# 50 to 65-Watt Enclosed Switching AC-to-DC Power Supplies

## 50-Watt Enclosed

**RS-50, RD-50,  
RT-50, & RQ-50 Series:**  
**Single, Dual, Triple & Quad Output**

- New smaller design: 3.9" x 3.8" x 1.4"
- 2.4 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input:  
88-264VAC@47-63Hz
- Short circuit / overload / over-voltage protection
- 105°C output capacitors
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- High operating temperature up to 70°C
- Mating Connector: 103587CH, pg 120
- Three-year warranty

**NEW**



UL US CE CB

## 60-Watt Enclosed

**S-60, D-60, T-60 & Q-60 Series:**  
**Single, Dual, Triple & Quad Outputs**

- 100% full-load burn-in
- 1.7 watts/in<sup>3</sup> maximum
- 105°C output capacitor
- Voltage adjustment: 10%
- Universal AC input: 88-264VAC@47-63Hz
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222130CH, 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com))
- Two-year warranty



UL US CE CB

## 65-Watt Enclosed

**RD-65, RT-65 & RQ-65 Series:**  
**Dual, Triple & Quad Outputs**

- New smaller design: 5.1" x 3.9" x 1.5"
- 2.2 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- 105°C output capacitors
- Universal AC input: 88-264VAC@47-63Hz
- Short circuit / overload / over-voltage protection
- Cooling by free air convection
- High operating temperature up to 70°C
- Withstanding voltage of 300VAC surge input for 5 seconds
- Mating Connector: 103587CH, pg 120
- Three-year warranty

**NEW**



UL US CE CB

Open-Frame Power Supplies  
on pages 150-155.

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Call for LOWER  
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Quantities

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
323387CH	Mean Well	RS-50-5	+5V@0-10A	50.0W	80	1	0.5	UL/CUL/TUV/CE/CB	\$37.05	\$31.35	\$29.79
323395CH	Mean Well	RS-50-12	+12V@0-4.2A	50.4W	120	0.5	0.5	UL/CUL/TUV/CE/CB	37.05	31.35	29.79
323408CH	Mean Well	RS-50-15	+15V@0-3.4A	51.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	37.05	31.35	29.79
323416CH	Mean Well	RS-50-24	+24V@0-2.2A	52.8W	120	0.5	0.5	UL/CUL/TUV/CE/CB	37.05	31.35	29.79
323424CH	Mean Well	RD-50A	+5V@0.3-6A; +12V@0.3-3A	54.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	39.95	34.25	32.55
323432CH	Mean Well	RD-50B	+5V@0.3-6A; +24V@0.2-2A	53.6W	80	0.5	0.5	UL/CUL/TUV/CE/CB	39.95	34.25	32.55
323441CH	Mean Well	RT-50A	+5V@0.5-5A; +12V@0.2-2.5A; -5V@0.5-5A	46.5W	80	1	0.5	UL/CUL/TUV/CE/CB	41.85	36.15	34.35
323459CH	Mean Well	RT-50B	+5V@0.5-5A; +12V@0.2-2.5A; -12V@0.1-1A	50.0W	80	1	0.5	UL/CUL/TUV/CE/CB	41.85	36.15	34.35
323467CH	Mean Well	RT-50C	+5V@0-5A; +15V@0.2-2A; -15V@0.1-1A	50.0W	80	1	0.5	UL/CUL/TUV/CE/CB	41.85	36.15	34.35
323475CH	Mean Well	RT-50D	+5V@0.5-5A; +12V0.1-1A; +24V@0.2-1.5A	51.0W	80	1	0.5	UL/CUL/TUV/CE/CB	41.85	36.15	34.35
323483CH	Mean Well	RQ-50B	+5V@0.5-6A; +12V@0.2-1.5A; -5V@0-1A; -12V@0-1A	45.5W	80	0.5	0.5	UL/CUL/TUV/CE/CB	43.75	37.05	35.25
323491CH	Mean Well	RQ-50D	+5V@0.5-6A; +12V@0.2-1.5A; +24V@0.1-1A; -12V@0-1A	53.4W	80	0.5	0.5	UL/CUL/TUV/CE/CB	43.75	37.05	35.25
123326CH	Mean Well	S-60-5	+5V@0-12A	60.0W	120	1	0.5	UL/CUL/TUV/CE/CB	53.95	48.55	42.99
123334CH	Mean Well	S-60-12	+12V@0-5A	60.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	53.95	41.50	37.30
123342CH	Mean Well	S-60-15	+15V@0-4A	60.0W	150	0.5	0.5	UL/CUL/TUV/CE/CB	53.95	41.50	37.30
123351CH	Mean Well	S-60-24	+24V@0-2.5A	60.0W	150	0.5	0.5	UL/CUL/TUV/CE/CB	53.95	41.50	37.30
123457CH	Mean Well	D-60A	+5V@0.3-4A; +12V@0.2-3A	56.0W	75	0.5	0.5	UL/CUL/TUV/CE/CB	54.95	44.10	39.70
123465CH	Mean Well	D-60B	+5V@0.3-3A; +24V@0.2-1.8A	58.0W	75	0.5	0.5	UL/CUL/TUV/CE/CB	54.95	44.10	39.70
123473CH	Mean Well	T-60A	+5V@0.5-5A; +12V@0.2-2.5A; -5V@0-0.5A	57.5W	100	1	0.5	UL/CUL/TUV/CE/CB	52.95	42.94	38.65
123481CH	Mean Well	T-60B	+5V@0.5-5A; +12V@0.2-2.5A; -12V@0-0.5A	61.0W	100	1	0.5	UL/CUL/TUV/CE/CB	57.95	47.00	42.30
123490CH	Mean Well	T-60C	+5V@0.5-5A; +15V@0.2-2A; -15V@0-0.5A	62.5W	100	1	0.5	UL/CUL/TUV/CE/CB	57.95	47.00	42.30
147045CH	Mean Well	Q-60B	+5V@0.5-5.5A; +12V@0.1-2A; -5V@0-0.5A; -12V@0-0.5A	60.0W	100	0.5	0.5	UL/CUL/CE/CB	59.95	49.90	44.90
323504CH	Mean Well	RD-65A	+5V@0.3-8A; +12V@0.2-4A	66.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	43.75	37.05	35.25
323512CH	Mean Well	RD-65B	+5V@0.3-8A; +24V@0.2-3A	68.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	43.75	37.05	35.25
323521CH	Mean Well	RT-65A	+5V@0.5-8A; +12V@0.2-3.5A; -5V@0-1A	66.1W	80	1	0.5	UL/CUL/TUV/CE/CB	47.55	39.95	37.95
323539CH	Mean Well	RT-65B	+5V@0.5-8A; +12V@0.2-3.5A; -12V@0-1A	64.6W	80	1	0.5	UL/CUL/TUV/CE/CB	47.55	39.95	37.95
323547CH	Mean Well	RT-65C	+5V@0.5-8A; +15V@0.2-3A; -15V@0-1A	65.5W	80	1	0.5	UL/CUL/TUV/CE/CB	47.55	39.95	37.95
323555CH	Mean Well	RT-65D	+5V@0.5-8A; +12V@0.1-1A; +24V@0.2-2A	68.0W	80	1	0.5	UL/CUL/TUV/CE/CB	47.55	39.95	37.95
323563CH	Mean Well	RQ-65B	+5V@0.5-8A; +12v@0.2-3A; -5V@0-1A; -12V@0-1A	62.5W	80	0.5	0.5	UL/CUL/TUV/CE/CB	48.45	40.85	38.85
323571CH	Mean Well	RQ-65D	+5V@0.5-8A; +12V@0.2-3A; +24V@0.1-1.5A; -12V@0-1A	68.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	48.45	40.85	38.85

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\* Primary Output

Special Offers at Great Savings – 90-Day Warranty

**SALE**

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)	Load Reg. (±%)	Line Reg. (±%)	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
211115CH	Fortron	SU65P10C	+5V@0-10A	50.0W	50	—	0.5	UL/CSA/TUV/CE	\$2.05	\$1.85	\$1.69

Blue Part No. = Limited Quantity Available

Order 24/7 Toll Free 1-800-831-4242

157

Color Code Legend  
New Sale Lower\$ QtySave



# 75 to 85-Watt Enclosed Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

## 75-Watt Enclosed with Power Factor Correction

### RS-75 Series: Single Output

- New smaller design: 5.1" x 3.9" x 1.5"
- 2.5 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- Short circuit / overload / over-voltage protection
- 105°C output capacitors
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- High operating temperature up to 70°C
- Mating Connector: 103587CH, pg 120
- Three-year warranty



NEW



## 75-Watt Enclosed with Power Factor Correction

### SP-75 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- 105°C output capacitor
- 2.1 watts/in<sup>3</sup> max.
- Power Factor Correction
- Voltage adj.: 10%
- Input: 85-264VAC@47-63Hz
- No minimum load required
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222148CH, 222156CH, 222164CH & 222172CH; (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Three-year warranty



## 85-Watt Enclosed with Power Factor Correction

### RD-85, RT-85 & RQ-85 Series: Dual, Triple & Quad Output

- New smaller design: 6.3" x 3.8" x 1.5"
- 2.4 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- Short circuit / overload / over-voltage protection
- 105°C output capacitors
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- High operating temperature up to 70°C
- Mating Connector: 103587CH, pg 120
- Three-year warranty



NEW



Open-Frame Power Supplies on pages 150-155.

Call for LOWER PRICES on Larger Quantities

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

SALE

Quantity SAVE

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
323580CH	Mean Well	RS-75-5	+5V@0-12A	60.0W	80	1	0.5	UL/CUL/TUV/CE/CB	\$41.85	\$35.15	\$33.39
323598CH	Mean Well	RS-75-12	+12V@0-6A	72.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	41.85	35.15	33.39
323601CH	Mean Well	RS-75-15	+15V@0-5A	75.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	41.85	35.15	33.39
323619CH	Mean Well	RS-75-24	+24V@0-3.2A	76.8W	120	0.5	0.5	UL/CUL/TUV/CE/CB	41.85	35.15	33.39
194829CH	Mean Well	SP-75-5	+5V@0-15A	75.0W	80	1	0.5	UL/CUL/TUV/CE/CB	59.95	53.96	48.56
194837CH	Mean Well	SP-75-12	+12V@0-6.3A	75.6W	80	0.5	0.5	UL/CUL/TUV/CE/CB	69.95	61.05	53.89
194845CH	Mean Well	SP-75-15	+15V@0-5A	75.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	69.95	61.05	53.89
194853CH	Mean Well	SP-75-24	+24V@0-3.2A	76.8W	100	0.5	0.5	UL/CUL/TUV/CE/CB	69.95	61.05	53.89
216805CH	Mean Well	SP-75-48	+48V@0-1.6A	76.8W	100	0.5	0.5	UL/CUL/TUV/CE/CB	64.95	55.21	41.41
323627CH	Mean Well	RD-85A	+5V@2-10A; +12V@0.3-5A	110.0W	80	1	0.5	UL/CUL/TUV/CE/CB	61.75	52.25	49.65
323635CH	Mean Well	RD-85B	+5V@2-10A; +24V@0.3-2.5A	110.0W	80	1	0.5	UL/CUL/TUV/CE/CB	61.75	52.25	49.65
323643CH	Mean Well	RT-85A	+5V@2-10A; +12V@0.3-4A; -5V@0-1A	84.5W	80	1	0.5	UL/CUL/TUV/CE/CB	66.55	57.05	54.25
323651CH	Mean Well	RT-85B	+5V@2-10A; +12V@0.3-4A; -12V@0-1A	88.0W	80	1	0.5	UL/CUL/TUV/CE/CB	66.55	57.05	54.25
323660CH	Mean Well	RT-85C	+5V@2-10A; +15V@0.3-4A; -15V@0-1A	87.5W	80	1	0.5	UL/CUL/TUV/CE/CB	66.55	57.05	54.25
323678CH	Mean Well	RT-85D	+5V@2-10A; +12V@0.1-1A; +24V@0.3-2.5A	90.0W	80	1	0.5	UL/CUL/TUV/CE/CB	66.55	57.05	54.25
323686CH	Mean Well	RQ-85B	+5v@2-10A; +12v@0.3-4A; -5V@0-1A; -12V@0-1A	80.7W	80	1	0.5	UL/CUL/TUV/CE/CB	68.45	57.95	55.05
323694CH	Mean Well	RQ-85D	+5V@2-10A; +12v@0.3-4A; +24V@0.1-1.5A; -12V@0-1A	84.0W	80	1	0.5	UL/CUL/TUV/CE/CB	68.45	57.95	55.05

\* Primary Output

### Awsome Prices in Power Supplies!

Jameco Power	Jameco Part No.	Comp. Part No.	Comp. Power	Jameco* Price	Newark* Price	Allied* Price	Digi-Key* Price	Mouser* Price	Minimum Savings	Discount
75W	323598CH	Condor GLC75-12	75W	\$41.85	—	\$72.62	\$72.26	\$72.76	\$30.41	42.1%
75W	323598CH	Lambda SWS75-5	75W	\$41.85	\$46.75	\$57.27	—	—	\$4.90	10.5%
85W	323686CH	Condor GPC80B	80W	\$68.45	—	\$120.72	\$114.11	\$120.12	\$45.66	40.0%
100W	323731CH	Lambda SWS100-24	100W	\$57.95	\$59.40	\$75.00	—	—	\$1.45	2.4%
100W	194811CH	Condor GPFC110-24	110W	\$81.95	—	—	\$100.53	\$100.53	\$18.58	18.5%
120W	132370CH	Condor GPC130D	130W	\$79.95	—	\$175.59	\$165.98	\$174.72	\$86.03	51.8%

These are single unit prices taken from each party's website on March 17, 2005, and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

Lowest Price Guarantee

Found a product at a lower print-advertised price? We'll beat that price by 10% right down to our cost!

## Open Frame Power Supplies

See pages 150-155 for our selection of Open Frame Power Supplies.





# 100 to 120-Watt Enclosed Switching AC-to-DC Power Supplies

## 100-Watt Enclosed

### RS-100 Series: Single Output

- New smaller design: 7.8" x 3.9" x 1.5"
- 2.7 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- Universal AC input: 88-264VAC @ 47-63Hz
- 105°C output capacitors
- Cooling by free air convection
- High operating temperature up to 70°C
- Short circuit / overload / over-voltage protection
- Withstanding voltage of 300VAC surge input for 5 seconds
- Mating Connector: 103587CH, pg 120
- Three-year warranty



## 100-Watt Enclosed

### S-100F Series: Single Output

- 100% full-load burn-in
- 2.3 watts/in<sup>3</sup> max.
- 105°C output capacitor
- Voltage adj.: 10%
- No minimum load required
- Input: 88-132/176-264VAC@47-63Hz
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222130CH, 222156CH and 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Two-year warranty



## 100-Watt Enclosed With Power Factor Correction

### SP-100 & TP-100 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input: 86-264VAC@47-63Hz
- 2.3 watts/in<sup>3</sup> maximum
- Power Factor Correction
- 105°C output capacitors
- Voltage adjustment: 10%
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware use P/Ns 222130CH, 222164CH, 222156CH, 222172CH & 222181CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Three-year warranty



## 120-Watt Enclosed

### D-120, T-120 & Q-120 Series: Dual, Triple & Quad Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com) for output derating)
- Mounting hardware: use P/Ns 222130CH, 222156CH and 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Two-year warranty



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Open-Frame Power Supplies on pages 150-155.

Call for LOWER PRICES on Larger Quantities

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
323707CH	Mean Well	RS-100-5	+5V@0-16A	80.0W	80	1	0.5	UL/CUL/TUV/CE/CB	\$57.95	\$49.45	\$46.99
323715CH	Mean Well	RS-100-12	+12V@0-8.5A	102.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	57.95	49.45	46.99
323723CH	Mean Well	RS-100-15	+15V@0-7A	105.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	57.95	49.45	46.99
323731CH	Mean Well	RS-100-24	+24V@0-4.5A	108.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	57.95	49.45	46.99
201961CH	Mean Well	S-100F-5	+5V@0-20A	100.0W	100	1	0.5	UL/TUV/CE/CB	66.95	56.91	42.68
123385CH	Mean Well	S-100F-12	+12V@0-8.5A	102.0W	125	0.5	0.5	UL/TUV/CE/CB	66.95	49.90	44.90
212450CH	Mean Well	S-100F-15	+15V@0-6.7A	100.5W	125	0.5	0.5	UL/TUV/CE/CB	66.95	49.90	44.90
201970CH	Mean Well	S-100F-24	+24V@0-4.5A	108.0W	150	0.5	0.5	UL/TUV/CE/CB	66.95	49.90	44.90
216792CH	Mean Well	S-100F-48	+48V@0-2.2A	105.6W	150	0.5	0.5	UL/TUV/CE/CB	66.95	49.90	44.90
212441CH	Mean Well	SP-100-3.3	+3.3V@0-20A	66.0W	100	1	0.5	UL/CUL/TUV/CE/CB	40.55	36.85	33.49
194790CH	Mean Well	SP-100-5	+5V@0-20A	100.0W	100	1	0.5	UL/CUL/TUV/CE/CB	81.95	79.70	71.70
194802CH	Mean Well	SP-100-12	+12V@0-8.5A	102.0W	100	0.5	0.5	UL/CUL/TUV/CE/CB	81.95	79.70	71.70
212433CH	Mean Well	SP-100-15	+15V@0-6.7A	100.5W	100	0.5	0.5	UL/CUL/TUV/CE/CB	81.95	79.70	71.70
194811CH	Mean Well	SP-100-24	+24V@0-4.2A	100.8W	150	0.5	0.5	UL/CUL/TUV/CE/CB	81.95	79.70	71.70
212425CH	Mean Well	SP-100-48	+48V@0-2.1A	100.8W	250	0.5	0.1	UL/CUL/TUV/CE/CB	69.95	59.46	44.59
213778CH	Mean Well	TP-100C	+5V@3-10A; +15V@0.4-3A; -15V@0-0.6A	104.0W	100	3	1	UL/CUL/TUV/CE/CB	99.95	84.96	63.72
132409CH	Mean Well	D-120A	5V@2-12A; 12V@0.5-5A	120.0W	60	0.5	0.5	UL/CUL/TUV/CE/CB	69.95	58.29	51.69
132396CH	Mean Well	D-120B	5V@2-6A; 24V@0.4-4A	126.0W	60	0.5	0.5	UL/CUL/TUV/CE/CB	69.95	58.29	51.69
301508CH	Mean Well	T-120B	5V@2-12A; 12V@0.5-5A; -12V@0.2-1A	121.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	74.95	61.04	53.89
301516CH	Mean Well	T-120C	5V@2-12A; 15V@0.5-5A; -15V@0.2-1A	117.5W	80	0.5	0.5	UL/CUL/TUV/CE/CB	74.95	61.04	53.89
132388CH	Mean Well	Q-120B	5V@2-11A; -5V@0.2-1A; 12V@0.5-4A; -12V@0.2-1A	120.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	79.95	67.96	50.97
132370CH	Mean Well	Q-120D	5V@2-8A; 24V@0.2-2A; 12V@0.2-2A; -12V@0.2-1A	124.0W	80	0.5	0.5	UL/CUL/TUV/CE/CB	79.95	63.79	56.09

\* Primary Output    Blue Part No. = Limited Quantity Available

## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
323871CH	Volgen	SP100U-24S	+24V@4.4A	105.6W	150	0.4	0.2	—	\$49.95	\$44.96	\$40.46
205858CH	Volgen	JRK-115B	+5V@4.5A; +15V@3.5A; +24V@0.4A; -5V@1.6A; -15V@1.5A	75.0W	100	0.8	0.4	—	17.99	16.37	14.88

\* Primary Output

Color Code Legend			
New	Sale	Lower\$	QtySave

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# 125 to 150-Watt Enclosed Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

## 125-Watt Enclosed

**RD-125, RT-125 & RQ-125 Series:**  
**Dual, Triple & Quad Output**

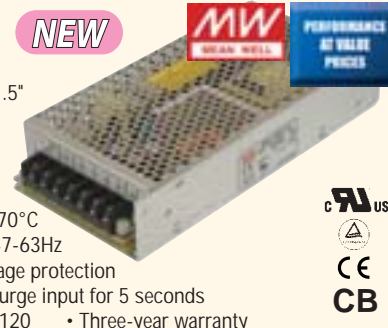
- New smaller design: 7.8" x 3.9" x 1.5"
- 2.7 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- 105°C output capacitors
- Universal AC input: 88-264VAC@47-63Hz
- Short circuit / overload / over-voltage protection
- Withstanding voltage of 300VAC surge input for 5 seconds
- High operating temperature up to 70°C
- Cooling by free air convection
- Mating Connector: 103587CH, pg 120
- Three-year warranty



## 150-Watt Enclosed

**RS-150 Series: Single Output**

- New smaller design: 7.8" x 3.9" x 1.5"
- 3.3 watts/in<sup>3</sup> power density
- 100% full-load burn-in
- 105°C output capacitors
- Cooling by free air convection
- High operating temperature up to 70°C
- Universal AC input: 88-264VAC@47-63Hz
- Short circuit / overload / over-voltage protection
- Withstanding voltage of 300VAC surge input for 5 seconds
- Mating Connector: 103587CH, pg 120
- Three-year warranty



## 150-Watt Enclosed

**S-150 Series: Single Output**

- 100% full-load burn-in
- No minimum load required
- Voltage adj.: 10%
- 105°C output capacitors
- Mating connector: P/N 103587CH, pg 120
- Input: 88-132/176-264@47-63Hz
- -10° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222130CH, 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com))
- Two-year warranty



## 150-Watt Enclosed with Power Factor Correction

**SP-150, TP-150 & QP-150 Series:**  
**Single, Triple & Quad Outputs**

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- 105°C output capacitors
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222130CH, 222156CH, 222164CH, 222181CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Three-year warranty



Open-Frame Power Supplies  
on pages 150-155.

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

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PRICES on Larger  
Quantities

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
323740CH	Mean Well	RD-125A	+5V@2-15A; +12V@0.5-10A	130.9W	80	3	1	UL/CUL/TUV/CE/CB	\$64.65	\$55.15	\$52.39
323758CH	Mean Well	RD-125B	+5V@2-10A; +24V@0.4-5A	133.4W	80	3	1	UL/CUL/TUV/CE/CB	64.65	55.15	52.39
323766CH	Mean Well	RT-125A	+5V@2-15A; +12V@0.5-6A; -5V@0.1-1A	131.0W	80	1	0.5	UL/CUL/TUV/CE/CB	70.35	60.85	57.85
323774CH	Mean Well	RT-125B	+5V@2-15A; +12V@0.5-6A; -12V@0.1-1A	132.0W	80	1	0.5	UL/CUL/TUV/CE/CB	70.35	60.85	57.85
323782CH	Mean Well	RT-125C	+5V@2-15A; +15V@0.5-6A; -15V@0.1-1A	132.5W	80	1	0.5	UL/CUL/TUV/CE/CB	70.35	60.85	57.85
323791CH	Mean Well	RT-125D	+5V@2-15A; +12V@0.1-2A; +24V@0.4-4A	136.0W	80	1	0.5	UL/CUL/TUV/CE/CB	70.35	60.85	57.85
323803CH	Mean Well	RQ-125B	+5V@2-12A; +12V@0.5-4.5A; -5V@0.1-1A; -12V@0.1-1A	120.0W	80	1	0.5	UL/CUL/TUV/CE/CB	72.25	62.75	59.65
323811CH	Mean Well	RQ-125D	+5V@2-12A; +12V@0.5-4A; +24V@0.1-2.5A; -12V@0-1A	124.0W	80	1	0.5	UL/CUL/TUV/CE/CB	72.25	62.75	59.65
323820CH	Mean Well	RS-150-5	+5V@0-26A	130.0W	80	1	0.5	UL/CUL/TUV/CE/CB	61.75	53.25	50.59
323838CH	Mean Well	RS-150-12	+12V@0-12.5A	150.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	61.75	53.25	50.59
323846CH	Mean Well	RS-150-15	+15V@0-10A	150.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	61.75	53.25	50.59
323854CH	Mean Well	RS-150-24	+24V@0-6.5A	156.0W	120	0.5	0.5	UL/CUL/TUV/CE/CB	61.75	53.25	50.59
323862CH	Mean Well	RS-150-48	+48V@0-3.3A	158.4W	200	0.5	0.5	UL/CUL/TUV/CE/CB	61.75	53.25	50.59
123393CH	Mean Well	S-150-5	5V@0-30A	150.0W	150	0.5	0.5	UL/CUL/TUV/CE/CB	64.79	58.30	52.50
123414CH	Mean Well	S-150-7.5	7.5V@0-20A	150.0W	150	0.5	0.5	UL/CUL/TUV/CE/CB	64.79	58.30	52.50
123422CH	Mean Well	S-150-12	12V@0-12.5A	150.0W	180	0.3	0.3	UL/CUL/TUV/CE/CB	64.79	58.30	52.50
202024CH	Mean Well	S-150-13.5	13.5V@0-11.2A	151.2W	180	0.3	0.3	UL/CUL/TUV/CE/CB	64.79	58.30	52.50
123431CH	Mean Well	S-150-15	15V@0-10A	150.0W	180	0.3	0.3	UL/CUL/TUV/CE/CB	64.79	58.30	52.50
123449CH	Mean Well	S-150-24	24V@0-6.5A	156.0W	240	0.2	0.2	UL/CUL/TUV/CE/CB	69.95	58.30	52.50
202032CH	Mean Well	S-150-27	27V@0-5.6A	151.2W	240	0.2	0.2	UL/CUL/TUV/CE/CB	64.79	55.07	41.30
167345CH	Mean Well	S-150-48	48V@0-3.2A	153.6W	240	0.2	0.2	UL/CUL/TUV/CE/CB	64.79	58.30	52.50
201902CH	Mean Well	SP-150-3.3	3.3V@0-30A	99.0W	100	1	0.5	UL/CUL/TUV/CE/CB	\$91.95 82.75	70.34	52.75
201911CH	Mean Well	SP-150-5	5V@0-30A	150.0W	100	1	0.5	UL/CUL/TUV/CE/CB	82.75	70.34	54.03
173420CH	Mean Well	SP-150-12	12V@0-12.5A	150.0W	100	0.5	0.5	UL/CUL/TUV/CE/CB	91.95	82.76	74.48
173411CH	Mean Well	SP-150-15	15V@0-10A	150.0W	100	0.5	0.5	UL/CUL/TUV/CE/CB	91.95	82.76	74.48
173403CH	Mean Well	SP-150-24	24V@0-6.3A	150.0W	150	0.5	0.5	UL/CUL/TUV/CE/CB	91.95	82.76	74.48
201929CH	Mean Well	SP-150-48	48V@0-3.2A	153.6W	250	0.5	0.5	UL/CUL/TUV/CE/CB	82.75	70.34	52.75
213858CH	Mean Well	TP-150A	5V@2-15A; 12V@0.4-6A; -5V@0-0.6A	150.0W	100	3	1	UL/CUL/TUV/CE/CB	93.25	83.89	75.50
213831CH	Mean Well	TP-150C	5V@2-15A; 15V@0.4-4.5A; -15V@0-0.6A	151.5W	100	3	1	UL/CUL/TUV/CE/CB	93.25	83.89	75.50
213647CH	Mean Well	QP-150F	12V@0.4-5A; -12V@0-0.6A	152.0W	120	2	1	UL/CUL/TUV/CE/CB	145.95	124.06	93.04

\* Primary Output

### Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)	Load Reg. (%)	Line Reg. (%)	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
199515CH	Globtek	RT-3S150-24	24V@6.5A	156.0W	100	5	5	UL/CE	\$59.95	\$47.95	\$35.95



# 200 to 320-Watt Enclosed Switching AC-to-DC Power Supplies

## 200-Watt Enclosed With Power Factor Correction

### SP-200 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- Power Factor Correction
- 105°C output capacitor
- 3.3 watts/in<sup>3</sup> maximum
- Built-in fan cooling
- Input: 85-264VAC@47-63Hz
- Voltage adj.: 10% • Three-year warranty
- Mating connector: P/N 103587CH, pg 120
- -10° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware use P/Ns 222130CH, 222156CH, 222164CH, 222181CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)



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## 200-Watt Enclosed With Power Factor Correction

### QP-200 Series: Quad Output

- 100% full-load burn-in
- Universal AC input
- Remote sense
- Power Factor Correction
- 105°C output capacitor
- 2.6 watts/in<sup>3</sup> maximum
- Built-in fan cooling
- Mating connector: P/N 103587CH, pg 120
- -10° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware use P/Ns 222148CH, 222156CH, 222181CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Three-year warranty



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## 240-Watt Enclosed

### S-240 Series: Single Output

- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 3.4 watts/in<sup>3</sup> maximum
- 105°C output capacitor
- Auto cooling fan
- Voltage adjustment: 10%
- Mating connector: P/N 103587CH, pg 120
- Input: 88-132/176-264VAC@47-63Hz
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware use P/Ns 222148CH, 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Two-year warranty



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## 300 & 320-Watt Enclosed With Power Factor Correction

### SP-300 & SP-320 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- Auto cooling fan
- Power Factor Correction
- Voltage adj.: 10%
- Input: 88-264VAC@47-63Hz
- 105°C output capacitor
- Mating connector: P/N 103587CH, pg 120
- Working temperature: SP-300: -10° to +60°C; SP-320: -20° to 65° (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222156CH, 222130CH, 222181CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications) • Three-year warranty



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Open-Frame Power Supplies on pages 150-155.

**SALE**

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Quantity SAVE

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
202041CH	Mean Well	SP-200-5	+5V@0-40A	200.0W	100	1	0.5	UL/CUL/TUV/CE/CB	\$102.95	\$85.79	\$74.79
194773CH	Mean Well	SP-200-12	+12V@0-16.7A	200.4W	100	0.5	0.5	UL/CUL/TUV/CE/CB	102.95	92.66	83.39
212409CH	Mean Well	SP-200-13.5	+13.5V@0-14.9A	201.1W	100	0.5	0.5	UL/CUL/TUV/CE/CB	102.95	92.66	83.39
202059CH	Mean Well	SP-200-15	+15V@0-13.4A	201.0W	100	0.5	0.5	UL/CUL/TUV/CE/CB	102.95	92.66	83.39
194781CH	Mean Well	SP-200-24	+24V@0-8.4A	201.6W	150	0.5	0.5	UL/CUL/TUV/CE/CB	102.95	92.66	83.39
202067CH	Mean Well	SP-200-48	+48V@0-4.2A	201.6W	250	0.5	0.5	UL/CUL/TUV/CE/CB	102.95	92.66	83.39
213751CH	Mean Well	QP-200D	+5V@3-15A; +12V@0-4A; +24V@0.4-3A; -12V@0-0.7A	204.9W	100	2	1	UL/CUL/TUV/CE/CB	156.95	127.99	112.99
202083CH	Mean Well	S-240-5	+5V@0-40A	200.0W	150	1	0.5	UL/CUL/TUV/CE/CB	80.05	72.76	66.14
137648CH	Mean Well	S-240-12	+12V@0-18A	216.0W	150	0.5	0.5	UL/CUL/TUV/CE/CB	109.95	98.95	89.09
202075CH	Mean Well	S-240-15	+15V@0-15A	225.0W	150	0.5	0.5	UL/CUL/TUV/CE/CB	94.95	85.46	76.91
137656CH	Mean Well	S-240-24	+24V@0-10A	240.0W	180	0.5	0.5	UL/CUL/TUV/CE/CB	109.95	98.95	89.09
167337CH	Mean Well	S-240-48	+48V@0-5A	240.0W	240	1	1	UL/CUL/TUV/CE/CB	109.95	98.95	89.09
202091CH	Mean Well	SP-300-5	+5V@0-50A at 230VAC; 0-40A at 115VAC	250.0W	150	1	0.5	UL/CUL/TUV/CE/CB	169.95	144.46	108.34
137390CH	Mean Well	SP-300-12	+12V@0-24A at 230VAC; 0-19.2A at 115VAC	288.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	181.95	159.70	143.80
212396CH	Mean Well	SP-300-13.5	+13.5V@0-21A at 230VAC; 0-16.8A at 115VAC	285.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	181.95	154.66	115.99
202104CH	Mean Well	SP-300-15	+15V@0-19A at 230VAC; 0-15.2A at 115VAC	285.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	181.95	159.70	143.80
137402CH	Mean Well	SP-300-24	+24V@0-12.5A at 230VAC; 0-10A at 115VAC	300.0W	150	0.5	0.2	UL/CUL/TUV/CE/CB	181.95	159.70	143.80
161980CH	Mean Well	SP-300-48	+48V@0-6.25A at 230VAC; 0-5A at 115VAC	300.0W	240	0.5	0.2	UL/CUL/TUV/CE/CB	181.95	154.66	115.99
244734CH	Mean Well	SP-320-5	+5V@0-55A at 230VAC; 0-44A at 115VAC	275.0W	150	1	0.5	UL/CUL/TUV/CE/CB	146.95	132.25	118.99
244742CH	Mean Well	SP-320-12	+12V@0-25A at 230VAC; 0-20A at 115VAC	300.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	146.95	132.25	118.99
244751CH	Mean Well	SP-320-24	+24V@0-13A at 230VAC; 0-10.4A at 115VAC	312.0W	150	0.5	0.2	UL/CUL/TUV/CE/CB	146.95	132.25	118.99
244769CH	Mean Well	SP-320-48	+48V@0-6.7A at 230VAC; 0-5.4A at 115VAC	321.6W	240	0.5	0.2	UL/CUL/TUV/CE/CB	146.95	132.25	118.99

\* Primary Output

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Color Code Legend  
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# 320 to 500-Watt Enclosed Switching AC-to-DC Power Supplies

Color Code Legend			
New	Save	Lower\$	QtySave

## 320-Watt Enclosed S-320 Series: Single Output

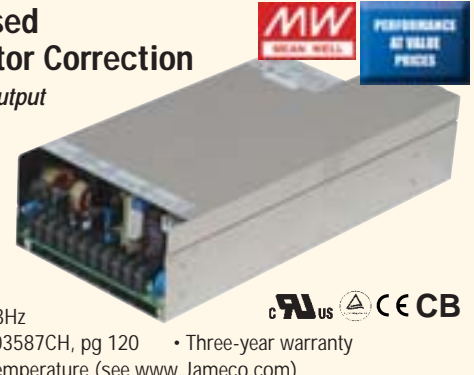
- 100% full-load burn-in
- Auto cooling fan
- No minimum load required
- 4.1 watts/in<sup>3</sup> maximum
- Voltage adj.: 10%
- Two-year warranty
- 105°C output capacitor
- Input: 88-132/176-264VAC@47-63Hz
- Mating connector: P/N 103587CH, pg 120
- -10° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222156CH, 222148CH, 222181CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com))



## 375-Watt Enclosed With Power Factor Correction

### QP-375 Series: Quad Output

- 100% full-load burn-in
- Universal AC input
- Remote sense function
- 2.8 watts/in<sup>3</sup> maximum
- Auto cooling fan
- Voltage adj.: 10%
- 105°C output capacitor
- Input: 88-264VAC@47-63Hz
- Mating connector: P/N 103587CH, pg 120
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com))
- Three-year warranty



## 480-Watt Enclosed SP-480 Series: Single Output

- Universal AC input
- -20°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Short circuit/ overload/ over-voltage/ over-temperature function
- Power Factor Correction
- Built-in ON-OFF control
- Remote sense function
- High power density: 5.18 watts/in<sup>3</sup> maximum
- Active AC surge current limiting
- Inrush current: 25A@115VAC
- Leakage current: <2mA@240VAC
- Size: 10.9"L x 5.0"W x 1.7"H
- Three-year warranty



## 500-Watt Enclosed With Power Factor Correction

### SP-500 Series: Single Output

- 100% full-load burn-in
- 3.6 watts/in<sup>3</sup> maximum
- Auto cooling fan
- 105°C output capacitor
- Power Factor Correction
- No minimum load required
- Input: 100-240VAC@50-60Hz
- Mating connector: P/N 103587CH pg 120
- Mounting hardware: use P/Ns 222199CH, 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com))
- -10° to +60°C working temp. (see [www.Jameco.com](http://www.Jameco.com))
- Universal AC input
- Remote control
- Voltage adj.: 10%
- Three-year warranty



Open-Frame Power Supplies  
on pages 150-155.

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Quantity SAVE

Call for LOWER  
PRICES on Larger  
Quantities

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
216776CH	Mean Well	S-320-5	+5V@0-50A	250.0W	150	1	0.5	UL/CUL	\$124.95	\$106.21	\$79.66
207212CH	Mean Well	S-320-7.5	+7.5V@0-36A	270.0W	150	0.5	0.5	UL/CUL	124.95	112.80	101.50
207204CH	Mean Well	S-320-12	+12V@0-25A	300.0W	150	0.5	0.5	UL/CUL	124.95	112.80	101.50
196656CH	Mean Well	S-320-24	+24V@0-12.5A	300.0W	150	0.5	0.5	UL/CUL	124.95	112.80	101.50
207191CH	Mean Well	S-320-48	+48V@0-6.5A	312.0W	240	0.5	0.5	UL/CUL	124.95	112.80	101.50
220302CH	Mean Well	QP-375-5A	+5V@3.5-30A; +12V@0-10A; +12V@0-6A; +12V@0-3A	378.0W	100	0.8	0.5	UL/CUL/TUV/CE/CB	194.15	176.49	160.45
220281CH	Mean Well	QP-375-5D	+5V@3.5-30A; +12V@0-9A; +12V@0-4A; +24V@0-3A	378.0W	100	0.8	0.5	UL/CUL/TUV/CE/CB	182.35	165.79	150.69
301372CH	Mean Well	SP-480-12	+12V@0-40A at 230VAC; 0-36A at 115VAC	480.0W	120	0.5	0.3	UL/CUL/TUV/CE/CB	293.95	253.68	228.33
301321CH	Mean Well	SP-480-24	+24V@0-20A at 230VAC; 0-18A at 115VAC	480.0W	150	0.5	0.2	UL/CUL/TUV/CE/CB	293.95	253.68	228.33
301401CH	Mean Well	SP-480-48	+48V@0-10A at 230VAC; 0-9A at 115VAC	480.0W	240	0.5	0.2	UL/CUL/TUV/CE/CB	293.95	253.68	228.33
190692CH	Mean Well	SP-500-12	+12V@0-40A at 230VAC; 0-34A at 115VAC	480.0W	240	0.5	0.5	UL/CUL/TUV/CE/CB	249.95	216.10	194.50
212388CH	Mean Well	SP-500-13.5	+13.5V@0-36A at 230VAC; 0-30.6A at 115VAC	486.0W	240	0.5	0.5	UL/CUL/TUV/CE/CB	249.95	212.46	159.34
213604CH	Mean Well	SP-500-15	+15V@0-32A at 230VAC; 0-27.2A at 115VAC	480.0W	240	0.5	0.5	UL/CUL/TUV/CE/CB	239.95	203.96	152.97
147053CH	Mean Well	SP-500-24	+24V@0-20A at 230VAC; 0-17A at 115VAC	480.0W	240	0.5	0.5	UL/CUL/TUV/CE/CB	249.95	216.10	194.50
190705CH	Mean Well	SP-500-27	+27V@0-18A at 230VAC; 0-15.3A at 115VAC	486.0W	200	0.5	0.5	UL/CUL/TUV/CE/CB	249.95	216.10	194.50
161795CH	Mean Well	SP-500-48	+48V@0-10A at 230VAC; 0-8.5A at 115VAC	480.0W	300	0.5	0.5	UL/CUL/TUV/CE/CB	249.95	216.10	194.50

\* Primary Output    Blue Part No. = Limited Quantity Available

## 30-Day Money Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange.

Details on page 258.

## Awesome Prices in Power Supplies!

Jameco Power	Jameco Part No.	Comp. Part No.	Comp. Power	Jameco Price	Newark Price	Allied Price	Minimum Savings	Discount
312W	207191CH	Lambda JWS30048	312W	\$124.95	\$394.32	\$438.32	\$269.37	68.3%
600W	220265CH	Omron S82D-6024	600W	\$273.95	—	\$1267.00	\$993.05	78.4%
600W	220265CH	Lambda JWS60024	648W	\$273.95	\$650.31	\$722.88	\$376.36	57.9%
750W	320047CH	Lambda JFS0750-24	750W	\$399.95	\$1112.02	\$1162.96	\$712.07	64.0%
1000W	217357CH	Lambda JFS01000-24	1000W	\$523.95	\$1253.98	—	\$730.03	58.2%
1500W	231722CH	Lambda JFS01500-48	1500W	\$786.95	\$1466.92	—	\$679.97	46.4%

These are single unit prices taken from each party's website on March 17, 2005, and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

# 500 to 1500W Enclosed Switching AC-to-DC Power Supplies

## 500, 1000 & 1500-Watt Enclosed With Power Factor Correction & Current Sharing

**PSP-500, PSP-1000 & PSP-1500 Series: Single Output**

- 100% full-load burn-in
- Voltage adj.: 10%
- 3.6 watts/in<sup>3</sup> maximum
- Remote sense and control
- Universal AC input: 90-264VAC@47-63Hz (PSP-500 and PSP-1000) 176-264VAC@47-63Hz (PSP-1500)
- Parallel operation (current sharing)
- -10° to +60°C working temp. (see [www.Jameco.com](http://www.Jameco.com) for output derating)
- Mounting hardware: use P/Ns 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- No minimum load required
- 105°C output capacitors
- Auto cooling fan
- Mating connector: P/N 103587CH, pg 120
- Three-year warranty



PSP-500

## 600-Watt Enclosed

**SE-600 Series: Single Output**

- AC input range switch selectable
- AC input active surge current limiting
- Inrush current: 30A@115VAC
- Leakage current: <2mA@240VAC
- Short circuit/overload/over-voltage/over-temperature protection
- -20° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Size: 9.7"L x 5.0"W x 2.5"H
- Two-year warranty

Very Low Cost

UL US CB



## 600-Watt Enclosed With Current Sharing

**SCN-600 Series: Single Output**

- 100% full-load burn-in
- No minimum load required
- 3.7 watts/in<sup>3</sup> maximum
- Universal AC input: 90-130/180-260VAC@47-63Hz
- 105°C output capacitor
- Remote sense and control
- -10° to +65°C working temperature; (+50° to -65°C @ 50% load) (see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222156CH & 222172CH (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Auto cooling fan
- Voltage adjustment: 5%
- Two-year warranty
- Parallel operation (current sharing)
- Mating connector: P/N 103587CH, pg 120

UL US CB



## 750-Watt Enclosed With Power Factor Correction

**SP-750 Series: Single Output**

- 100% full-load burn-in
- Universal AC input: 88-264VAC@47-63Hz
- Short circuit / overload / over-voltage protection
- 105°C output capacitors
- Withstanding voltage of 300VAC surge input for 5 seconds
- Cooling by free air convection
- High operating temperature up to 70°C
- Mating Connector: 103587CH, pg 120
- Built-in active PFC function, PF>0.95
- High power density 5.48/inch<sup>3</sup>
- Built-in constant current limiting circuit
- Power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- Three-year warranty

NEW



UL US CB

## Save Big! Special Values!

New Lower Prices = Orange  
Sale Priced Items = Yellow  
Exceptional Quantity Discounts = Green

Open-Frame Power Supplies  
on pages 150-155.

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Quantity SAVE

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output		Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)	Power					1	10	25
190713CH	Mean Well	PSP-500-12	+12V@0-41.5A at 230VAC; 0-33.2A at 115VAC	498.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	\$269.95	\$232.09	\$216.69
202121CH	Mean Well	PSP-500-15	+15V@0-33A at 230VAC; 0-26.4A at 115VAC	498.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	269.95	229.46	172.09
190721CH	Mean Well	PSP-500-24	+24V@0-20.8A at 230VAC; 0-16.6A at 115VAC	499.2W	150	0.5	0.2	UL/CUL/TUV/CE/CB	269.95	242.96	218.66
190730CH	Mean Well	PSP-500-27	+27V@0-18.5A at 230VAC; 0-14.8A at 115VAC	499.5W	150	0.5	0.2	UL/CUL/TUV/CE/CB	269.95	229.46	172.09
190748CH	Mean Well	PSP-500-48	+48V@0-10.5A at 230VAC; 0-8.4A at 115VAC	504.0W	200	0.5	0.2	UL/CUL/TUV/CE/CB	269.95	229.46	172.09
291522CH	Mean Well	SE-600-15	+15V@0-40A	600.0W	150	0.5	0.5	UL/CUL/CB	173.95	156.59	140.89
295902CH	Mean Well	SE-600-24	+24V@0-25A	600.0W	150	0.5	0.5	UL/CUL/CB	173.95	156.59	140.89
295911CH	Mean Well	SE-600-27	+27V@0-22.2A	599.4W	150	0.5	0.5	UL/CUL/CB	173.95	156.59	140.89
295929CH	Mean Well	SE-600-48	+48V@0-12.5A	600.0W	200	0.5	0.5	UL/CUL/CB	173.95	156.59	140.89
220249CH	Mean Well	SCN-600-05	+5V@0-100A	500.0W	100	2	0.5	UL/CUL/CB	273.95	213.99	197.99
220257CH	Mean Well	SCN-600-12	+12V@0-50A	600.0W	120	1	0.5	UL/CUL/CB	273.95	213.99	197.99
220265CH	Mean Well	SCN-600-24	+24V@0-25A	600.0W	240	1	0.5	UL/CUL/CB	273.95	213.99	197.99
319943CH	Mean Well	SP-750-12	+12V@0-62.5A	750.0W	120	2	0.5	UL/CUL/TUV/CE/CB	399.95	359.95	323.95
320047CH	Mean Well	SP-750-24	+24V@0-31.3A	750.0W	120	0.5	0.2	UL/CUL/TUV/CE/CB	399.95	359.95	323.95
320055CH	Mean Well	SP-750-48	+48V@0-15.7A	750.0W	120	0.5	0.2	UL/CUL/TUV/CE/CB	399.95	359.95	323.95
217373CH	Mean Well	PSP-1000-5	+5V@0-145A at 230VAC; 0-123.3A at 115VAC	725.0W	100	2	0.5	UL/CUL/TUV/CE/CB	499.95	424.96	318.72
217365CH	Mean Well	PSP-1000-12	+12V@0-75A at 230VAC; 0-63.8A at 115VAC	900.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	523.95	445.36	334.02
231642CH	Mean Well	PSP-1000-13.5	+13.5V@0-67A at 230VAC; 0-57.8A at 115VAC	1000.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	523.95	445.36	334.02
231634CH	Mean Well	PSP-1000-15	+15V@0-60A at 230VAC; 0-51A at 115VAC	900.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	523.95	445.36	334.02
217357CH	Mean Well	PSP-1000-24	+24V@0-37.6A at 230VAC; 0-32A at 115VAC	902.4W	150	0.5	0.2	UL/CUL/TUV/CE/CB	523.95	445.36	334.02
231651CH	Mean Well	PSP-1000-27	+27V@0-33.6A at 230VAC; 0-28.6A at 115VAC	907.2W	150	0.5	0.2	UL/CUL/TUV/CE/CB	523.95	445.36	334.02
217349CH	Mean Well	PSP-1000-48	+48V@0-19A at 230VAC; 0-16.2A at 115VAC	912.0W	200	0.5	0.2	UL/CUL/TUV/CE/CB	523.95	442.19	402.59
231669CH	Mean Well	PSP-1500-5	+5V@0-217.5A	1087.5W	100	2	0.5	UL/CUL/TUV/CE/CB	786.95	668.91	501.68
231693CH	Mean Well	PSP-1500-15	+15V@0-90.0A	1350.0W	150	0.5	0.3	UL/CUL/TUV/CE/CB	786.95	668.91	501.68
231714CH	Mean Well	PSP-1500-27	+27V@0-50.4A	1360.8W	150	0.5	0.2	UL/CUL/TUV/CE/CB	786.95	663.25	619.25
231722CH	Mean Well	PSP-1500-48	+48V@0-28.5A	1368.0W	200	0.5	0.2	UL/CUL/TUV/CE/CB	786.95	663.25	619.25

\* Primary Output

Color Code Legend			
New	Sale	Lower\$	Qty\$ave

Order 24/7 Toll Free 1-800-831-4242

# DIN-Rail Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Lower\$ QtySave

**SALE**

## DIN-Rail Switching Power Supplies

- Low cost, high reliability
- Soft-start circuit, limiting AC surge current
- Short-circuit, overload, over-voltage protected
- 100% full-load burn-in test
- For DIN-Rail terminal blocks see page 119



Part No.	Product No.	Power (W)	Output Volts@Current	Input Voltage (VAC @ Hz/VDC)	Input Current @ Maximum Load	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
212302CH	DR-4505	25	5VDC @ 5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.9	\$45.95	\$35.19	\$32.99
192698CH	DR-4512	42	12VDC @ 3.5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	45.95	35.19	32.99
221874CH	DR-4515	42	15VDC @ 2.8A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.9	45.95	35.19	32.99
192680CH	DR-4524	48	24VDC @ 2A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	45.95	35.19	32.99
212290CH	DR-7512	75	12VDC @ 6.3A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	73.95	56.09	51.69
212281CH	DR-7524	75	24VDC @ 3.2A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	73.95	56.09	51.69
221866CH	DR-7548	75	48VDC @ 1.6A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	48.85	41.95	38.11
212273CH	DR-12012	120	12VDC @ 10A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	64.89	60.49
212265CH	DR-12024	120	24VDC @ 5A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	64.89	60.49
221903CH	DR-12048	120	48VDC @ 2.5A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	76.95	69.26	62.33
221891CH	DRP-24024	240	24VDC @ 10A	85-264 @ 47-63/120-370	3.5A(115V)/1.8A(230V)	3.9 x 4.9 x 4.9	2.4	156.95	112.19	104.49
221882CH	DRP-24048	240	48VDC @ 5.0A	85-264 @ 47-63/120-370	3.5A(115V)/1.8A(230V)	3.9 x 4.9 x 4.9	2.4	156.95	141.26	127.13
252662CH	DRP-48024	480	24VDC @ 20.0A	180-264 @ 47-63/25-370	4.0A(230V)	8.9 x 3.9 x 4.9	4.6	218.95	207.99	197.60
252654CH	DRP-48048	480	48VDC @ 10.0A	180-264 @ 47-63/25-370	4.0A(230V)	8.9 x 3.9 x 4.9	4.6	218.95	207.99	197.60
295937CH	DRP-480S-24	480	24VDC @ 20.0A	90-132/180-264* @ 47-63/254-370	11.0A(115V)/4.0A(230V)	8.9 x 3.9 x 4.9	4.6	225.35	215.03	204.28
301305CH	DRP-480S-48	480	48VDC @ 10.0A	90-132/180-264* @ 47-63/254-370	11.0A(115V)/4.0A(230V)	8.9 x 3.9 x 4.9	4.6	225.35	215.03	204.28

\*Switch selectable † With Power Factor Correction ⚡ Blue Part No. = Limited Quantity Available

### DIN Mounting Rail

DIN rail enables easy installation of components such as fuseable terminal blocks & power supplies configured for DIN mounting.



Part No.	Product No.	Description	Material	Type	Length	1	10	100
248735CH	2094.0	Prepunched	Zinc bichromate plate steel	TS35x7.5	1 meter (39")	\$6.79	\$5.45	\$4.10

## Linear AC-to-DC Power Supplies

### 13.8VDC Precision Regulated Power Supplies

- Output voltage: 13.8VDC
- Heavy duty 5'8" 3-prong power cord
- Short-circuit protection
- Output mating terminals: see page 121 for cigarette plugs & page 221 for banana terminal plugs
- Input voltage: 115VAC @ 60Hz
- Illuminated rocker switch
- Fuse protected

135845CH  
Banana/  
Cigarette



136581CH  
Banana  
terminal



138667CH  
Banana  
terminal  
(rear)



Part No.	Model No.	Power (W)	Output Current (A)	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
135845CH	RPS1204	55.2	4	Banana terminals / cigarette plug	6.7 x 5.2 x 3.2	5.5	\$29.95	\$26.95	\$23.95
136581CH	RPS1207	96.6	7	Banana terminals	8.7 x 5.7 x 3.6	8.5	59.95	53.95	48.95
138667CH	38-381	138.0	10	Banana terminals (rear)	7.0 x 6.6 x 4.3	10.0	69.95	62.95	56.95
138675CH	52-192012	276.0	20	Banana terminals	10.0 x 7.8 x 4.4	15.9	109.95	99.95	89.95

† P/N 136581CH includes overheating protection

### ACDC Electronics

### 45-Watt Linear Power Supply

- Input connector: 0.173" solder terminals
- Output connector: solder studs

Part No.	Product No.	Output Voltage	Input Voltage	Size	Weight	1	10	25
214615CH	ECV15N3	15V @ 3A	115VAC @ 50-60Hz	5.6"L x 5.0"W x 3.0"H	4.0 lbs. ....	\$5.45	\$4.95	\$4.50

⚡ Blue Part No. = Limited Quantity Available



## We're Listening to What You Need



Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs.

Please send requests to [info@Jameco.com](mailto:info@Jameco.com).



## Reducing Inducing

Remember when you learned about antenna theory? The idea is simple... put a conductor in a fluxing B-field and you get a current through the conductor.

Well, for those of us who enjoyed radio and other analog circuits, that was great. But most of us think digital and we forget about the power (positive or negative) of induction.

For instance, does your design employ long leads to a DC power source? Spare yourself the hassle of developing elaborate power filters and simply use a Point Of Load DC-to-DC converter like the ones on the right page. They're inexpensive, designed to last, and accept a broad range of input voltages.

**Practical Practices**  
Money Saving Tips for the Engineer



# 6 to 30-Amp Non-Isolated, Point-of-Load DC-to-DC Converters

## 6-Amp SIL06C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- Ultra-wide trim range
- "Power good" signal
- Planar magnetics technology
- Protection: over-current & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)



219150CH



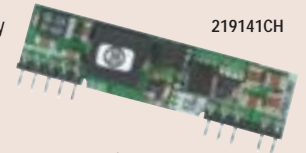
219168CH

## 10-Amp SIL10E Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- 96% efficiency at 3.3V
- Highest power density: 107W/in<sup>3</sup>
- Planar magnetics technology
- Protection: thermal & short-circuit
- Working temperature: -40° to +100°C (derated above 70°C)



219141CH



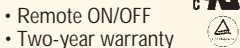
**SALE**

Mfr.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Temp. °C	Efficiency (%)	MTBF (hours)	Jameco Part No.	Price			
			Voltage@Current	Power									1	10	25	100
Artesyn	SIL06C-05SADJ-V	4.5V-5.5V	0.9-3.3V@6A	20W	1.2x0.6x0.07	8	0.2	0.5	0 to +80	89	1,300,000	219150CH	\$8.39	\$7.98	\$7.58	\$7.20
Artesyn	SIL06C-05SADJ-H	4.5V-5.5V	0.9-3.3V@6A	20W	1.2x0.6x0.53	8	0.2	0.5	0 to +80	89	1,300,000	219168CH	\$8.39	7.98	7.58	7.20
Artesyn	SIL10E-05S1V8-V	3.0V-5.5V	1.8V@10A	18W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	92	7,042,000	219141CH	\$16.29	15.47	14.69	13.96
Artesyn	SIL10E-05S2V5-V	3.0V-5.5V	2.5V@10A	25W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	94	7,042,000	219133CH	\$16.29	15.47	14.69	13.96
Artesyn	SIL10E-05W3V3-V	4.5V-5.5V	0.8-3.6V@10A	33W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	95	7,042,000	219117CH	\$16.29	15.47	14.69	13.96
Artesyn	SIL10E-05S3V3-V	4.5V-5.5V	3.3V@10A	33W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	95	7,042,000	219125CH	\$16.29	15.47	14.69	13.96

Blue Part No. = Limited Quantity Available

## 15-Amp SIL15C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Ultra-wide trim range
- Protection: over-current & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

## 30-Amp SIL30C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Two-year warranty
- Horizontal & vertical models
- Protection: over-current, over-temperature & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)



**SALE**

Mfr.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Temp. °C	Efficiency (%)	Jameco Part No.	Price			
			Voltage@Current	Power								1	10	25	100
Artesyn	SIL15C-05SADJ-V	4.5V-5.5V	0.9V-3.3V@15A	50W	1.20x1.10x0.40	13	0.2	0.5	0 to +80	89	218886CH	\$11.45	\$10.89	\$10.35	\$9.83
Artesyn	SIL15C-12SADJ-V	10.2V-13.8V	0.9V-5V@15A	75W	1.20x1.10x0.40	13	0.2	0.5	0 to +80	91	218878CH	16.65	15.19	13.74	12.29
Artesyn	SIL30C-12SADJ-V	10.2V-13.8V	0.9V-5V@30A	150W	2.40x1.25x0.47	24	0.2	1.0	0 to +80	91	218860CH	17.59	16.73	15.89	15.10

Blue Part No. = Limited Quantity Available

# 0.5 to 5-Watt Isolated DC-to-DC Converters

## 0.5 & 1-Watt Regulated & Unregulated Encapsulated

- 1000VDC isolation
- Protection: short-circuit
- Working temp.: -15 to +60°C
- No external components needed
- Input filter: capacitor type
- 100% burn-in test
- One-year warranty



## 3 & 5-Watt Regulated Encapsulated

- 1000VDC isolation
- 2:1 wide input range
- Shielded metal case
- Working temperature: -15 to +60°C
- No external components needed
- Protection: short-circuit & overload
- Input filter: Pi network
- 100% burn-in test
- One-year warranty



**SALE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
213225CH	SRS-0505	4.5-5.5V	+5V@100mA	0.5W	0.88x0.39x0.33	8	1.0	1.0	100	\$5.39	\$4.91	\$4.46	\$4.08
216830CH	SPR01L-12	4.5-5.5V	+12V@84mA	1W	0.77x0.28x0.4	4	1.0	1.0	100	8.95	8.06	7.25	6.52
213268CH	SCW03A-05	9-18V	+5V@600mA	3W	1.25x0.8x0.48	10	1.0	0.5	100	15.49	13.95	12.59	11.29
155918CH	DCW03A-05	9-18V	+5V@300mA; -5V@300mA	3W	1.25x0.8x0.48	10	1.0	0.5	100	20.95	18.89	16.99	15.29
161701CH	DCW03A-12	9-18V	+12V@125mA; -12V@125mA	3W	1.25x0.8x0.48	10	1.0	0.5	100	20.95	18.89	16.99	15.29
220388CH	SLW05L-12	4.5-9V	+12V@417mA	5W	2x1x0.44	5	0.2	0.5	100	24.95	22.49	20.25	18.25
220353CH	SLW05A-033	9-18V	+3.3V@1500mA	5W	2x1x0.44	5	0.2	0.5	100	19.95	17.95	16.16	14.54
216928CH	SLW05A-05	9-18V	+5V@1000mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	22.49	20.25	18.25
216881CH	SLW05A-15	9-18V	+15V@333mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	22.49	20.25	18.25
216936CH	SLW05B-05	18-36V	+5V@1000mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	22.49	20.25	18.25
216910CH	SLW05B-12	18-36V	+12V@417mA	5W	2x1x0.44	5	1.0	0.2	100	21.95	19.76	17.78	16.00
216864CH	DLW05B-12	18-36V	+12V@208mA; -12V@208mA	5W	2x1x0.44	5	0.2	0.2	100	24.95	22.46	17.96	13.47
213233CH	SLW05C-05	36-72V	+5V@1000mA	5W	2x1x0.44	5	1.0	0.2	100	17.25	15.50	13.95	12.56

**Lowest Price Guarantee**

Found a product at a lower print advertised price?  
We'll beat that price by 10% right down to our cost!

# 10 to 20-Watt Isolated DC-to-DC Converters

Color Code Legend  
New Sale Lower\$ QtySave

## 10-Watt Encapsulated

- Isolation voltage: 1000VDC
- 2:1 wide input range
- Working temperature: -15 to +60°C
- Free-air convection cooling

- Input filter: Pi-network
- Shielded metal case
- Industry standard package
- One-year warranty

- 100% burn-in test
- Protection: short-circuit & overload



Quantity SAVE

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
216961CH	SKE10A-05	9-18V	+5V@2000mA	10W	2x1x0.44	5	0.3	1.0	50	\$33.95	\$30.55	\$26.95	\$24.55
216979CH	SKE10A-15	9-18V	+15V@666mA	10W	2x1x0.44	5	0.3	1.0	60	33.95	30.56	24.44	18.33
220337CH	SKE10B-033	18-36V	+3.3V@2400mA	8W	2x1x0.44	5	0.3	0.5	50	33.95	30.56	24.44	18.33
216952CH	SKE10B-05	18-36V	+5V@2000mA	10W	2x1x0.44	5	0.3	0.5	50	33.95	30.55	26.95	24.55
217023CH	SKE10B-12	18-36V	+12V@840mA	10W	2x1x0.44	5	0.3	0.5	60	29.95	26.96	21.56	16.17
220345CH	SKE10C-033	36-72V	+3.3V@2400mA	8W	2x1x0.44	5	0.3	0.5	50	21.49	19.54	17.76	16.15
216944CH	SKE10C-05	36-72V	+5V@2000mA	10W	2x1x0.44	5	0.3	1.0	50	33.95	30.56	24.44	18.33
216987CH	SKE10C-15	36-72V	+15V@666mA	10W	2x1x0.44	5	0.3	1.0	60	18.99	17.29	15.71	14.28
217031CH	DKE10A-05	9-18V	+5V@1000mA; -5V@1000mA	10W	2x1x0.44	5	0.3	0.5	50	34.95	31.46	25.16	18.87
217091CH	DKE10A-12	9-18V	+12V@420mA; -12V@420mA	10W	2x1x0.44	5	0.3	0.5	60	34.95	31.45	27.95	25.45
217111CH	DKE10A-15	9-18V	+15V@333mA; -15V@333mA	10W	2x1x0.44	5	0.3	0.5	60	34.95	31.45	27.95	25.45
217058CH	DKE10B-05	18-36V	+5V@1000mA; -5V@1000mA	10W	2x1x0.44	5	0.3	0.5	50	20.35	18.51	16.82	15.29
217074CH	DKE10B-15	18-36V	+15V@333mA; -15V@333mA	10W	2x1x0.44	5	0.3	0.5	60	34.95	31.45	27.95	25.45
217040CH	DKE10C-05	36-72V	+5V@1000mA; -5V@1000mA	10W	2x1x0.44	5	0.3	0.5	50	20.35	18.51	16.82	15.29
217103CH	DKE10C-12	36-72V	+12V@420mA; -12V@420mA	10W	2x1x0.44	5	0.3	0.5	60	24.95	21.99	20.04	16.56
217066CH	DKE10C-15	36-72V	+15V@333mA; -15V@333mA	10W	2x1x0.44	5	0.3	0.5	60	20.35	18.51	16.82	15.29

Blue Part No. = Limited Quantity Available

## 10-Watt Open Frame

CXA10 Series: Single Output

- Isolation voltage: 1500VDC
- Industry standard footprint
- Remote ON/OFF
- 4:1 input voltage range
- Protection: short-circuit & overload
- Working temp.: -40 to +100°C (see [www.Jameco.com](http://www.Jameco.com))

- 100% burn-in test
- Two-year warranty



## 15-Watt Open Frame

- Isolation voltage: 1500VDC
- Industry standard footprint
- Remote ON/OFF
- No minimum load
- Protection: over-voltage & over-current
- Working temperature: -40° to +65°C
- Output trim

- 100% burn-in test
- Two-year warranty



## 15-Watt Encapsulated

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- Shielded metal case
- 100% burn-in test
- Free-air convection cooling
- Input filter: Pi network
- Working temperature: -15° to +60°C

- 2:1 wide input range
- One-year warranty



## 20-Watt Open Frame

- Isolation voltage: 1500VDC
- Output trim
- Industry standard footprint
- 100% burn-in test
- 4:1 input voltage range
- Protection: over-voltage, over-temperature & short-circuit
- Working temperature: -40° to +60°C (see [www.Jameco.com](http://www.Jameco.com))

- Remote ON/OFF
- No minimum load
- Two-year warranty



Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
219037CH	CXA10-48S3V3	18-75V	+3.3V@2400mA	7.9W	2x1x0.54	6	0.1	0.2	30	\$25.55	\$24.29	\$23.07	\$21.92
219045CH	CXA10-48S05	18-75V	+5.0V@2000mA	10W	2x1x0.54	6	0.1	0.2	30	25.55	24.29	23.07	21.92
219070CH	CXE15-48S1V8	33-75V	+1.8V@6000mA	10.8W	2x1x0.35	6	0.3	2.0	40	24.69	23.48	22.31	21.19
219088CH	CXE15-48S2V5	33-75V	+2.5V@6000mA	15W	2x1x0.35	6	0.3	1.5	40	24.69	23.48	22.31	21.19
219053CH	CXE15-48S3V3	33-75V	+3.3V@4500mA	15W	2x1x0.35	6	0.1	0.5	70	24.69	23.48	22.31	21.19
219061CH	CXE15-48S05V	33-75V	+5V@3000mA	15W	2x1x0.35	6	0.1	0.5	70	24.69	23.48	22.31	21.19
155715CH	SKE15A-05	9-18V	+5V@3000mA	15W	2x2x0.43	5	0.3	0.5	50	34.95	31.49	28.15	25.35
155707CH	SKE15A-12	9-18V	+12V@1250mA	15W	2x2x0.43	5	0.3	0.5	60	34.95	31.19	28.15	25.35
155694CH	SKE15A-24	9-18V	+24V@625mA	15W	2x2x0.43	5	0.3	0.5	80	34.95	31.49	28.15	25.35
213276CH	SKE15B-05	18-36V	+5V@3000mA	15W	2x2x0.43	5	0.3	0.5	50	34.95	31.49	28.15	25.35
213284CH	SKE15B-12	18-36V	+12V@1250mA	15W	2x2x0.43	5	0.3	0.5	60	34.95	31.49	28.15	25.35
161728CH	DKE15A-12	9-18V	+12V@625mA; -12V@625mA	15W	2x2x0.43	5	0.3	0.5	60	35.95	32.35	29.15	24.25
213292CH	DKE15A-24	9-18V	+24V@313mA; -24V@313mA	15W	2x2x0.43	5	0.3	0.5	80	32.95	29.69	26.90	24.05
217154CH	DKE15C-15	36-72V	+15V@500mA; -15V@500mA	15W	2x2x0.43	5	0.3	0.5	60	19.69	17.89	16.26	14.79
219109CH	CXA20-48S3V3	18-75V	+3.3V@6000mA	19.8W	2x1.6x0.41	8	0.1	0.2	75	35.49	33.73	32.04	30.44
219096CH	CXA20-48S05	18-75V	+5V@4000mA	20.0W	2x1.6x0.41	8	0.1	0.1	75	35.49	33.73	32.04	30.44

Blue Part No. = Limited Quantity Available

Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us!



# 20 to 30-Watt Isolated DC-to-DC Converters

## 20-Watt Encapsulated

- Isolation voltage: 1000VDC
- Output trim
- Free-air convection cooling
- One-year warranty

- Working temp.: -40° to +71°C
- Industry standard package
- 100% burn-in test

- Shielded metal case
- Input filter: PI network
- Protection: short-circuit & overload



**SALE**

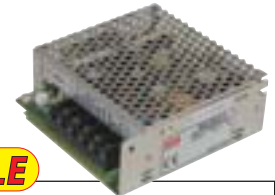
Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
217630CH	DKB20A-05	9-18V	+5V@2000mA; -5V@2000mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$44.95	\$40.49	\$36.45	\$32.79
217621CH	DKB20A-15	9-18V	+15V@667mA; -15V@667mA	20W	1.2x2x0.82	8	0.2	0.2	100	33.09	30.07	27.34	24.85
217592CH	DKB20B-12	18-36V	+12V@833mA; -12V@833mA	20W	1.2x2x0.82	8	0.2	0.2	100	32.99	25.69	24.40	23.18
217605CH	DKB20B-15	18-36V	+15V@667mA; -15V@667mA	20W	1.2x2x0.82	8	0.2	0.2	100	33.05	30.00	27.27	24.79
217576CH	DKB20C-12	36-72V	+12V@833mA; -12V@833mA	20W	1.2x2x0.82	8	0.2	0.2	100	33.09	25.89	24.60	23.37
217613CH	DKB20C-15	36-72V	+15V@667mA; -15V@667mA	20W	1.2x2x0.82	8	0.2	0.2	100	33.09	25.89	24.60	23.37
217648CH	TKB20C-B	36-72V	+5V@2500mA; ±12V@310mA	20W	1.2x2x0.82	8	0.2	0.2	100	37.79	33.99	31.25	29.89

☉ Blue Part No. = Limited Quantity Available

## 25-Watt Enclosed

- Isolation voltage: 500VDC
- 2:1 wide input range
- Working temperature: -10° to +60°C
- Protection: short-circuit, overload and over-voltage
- Input filter: PI-network
- Shielded metal case
- 100% burn-in test

- Free-air convection cooling
- 105°C output capacitor
- One-year warranty



**SALE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
175661CH	SD-25A-5	9-18V	+5V@5000mA	25W	see www.Jameco.com	5	0.5	0.5	100	\$40.95	\$30.99	\$28.99	\$24.99
175804CH	SD-25A-12	9-18V	+12V@2100mA	25.2W	see www.Jameco.com	5	0.3	0.3	120	37.95	34.16	27.32	20.49
175812CH	SD-25A-24	9-18V	+24V@1100mA	26.4W	see www.Jameco.com	5	0.2	0.2	150	40.95	30.99	28.99	24.99

## 30-Watt Encapsulated

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- Shielded metal case
- Working temperature: -40° to +71°C
- Input filter: PI-network
- 2:1 wide input range
- Remote ON/OFF
- Output trim

- Input filter: PI-network
- 2:1 wide input range
- Remote ON/OFF
- Output trim

- Switching frequency: 100kHz
- 100% burn-in test
- One-year warranty



**SALE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
218544CH	DKA30B-12	18-36V	±12V@1250mA	30W	2x2x0.82	8	0.2	0.2	100	40.55	\$32.99	\$30.01	\$27.28
217699CH	DKA30C-12	36-72V	±12V@1250mA	30W	2x2x0.82	8	0.2	0.2	100	32.99	29.99	27.28	24.80
217681CH	TKA30C-B	36-72V	+5V@3500mA; ±12V@310mA	25W	2x2x0.82	8	0.2	0.2	100	35.39	32.15	29.23	26.57

☉ Blue Part No. = Limited Quantity Available

## 30-Watt Encapsulated

- Isolation voltage: 1000VDC
- 2:1 wide input range
- Working temperature: -25° to +85°C
- Protection: short-circuit, overload & over-voltage
- Input filter: PI-network
- Shielded metal case
- 100% burn-in test

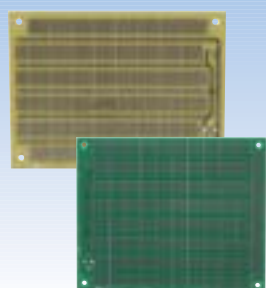
- Output trim
- Remote ON/OFF
- One-year warranty



Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
217234CH	SDM30-12S12	9-18V	+12V@2100mA	25.2W	2x1.8x0.62	8	1.0	1.0	100	\$34.95	\$31.77	\$28.88	\$26.26
217242CH	SDM30-24S12	18-36V	+12V@2500mA	30W	2x1.8x0.62	8	1.0	1.0	100	45.95	41.35	37.25	33.55
217226CH	SDM30-48S05	36-72V	+5V@5000mA	25W	2x1.8x0.62	8	1.0	1.0	100	26.55	24.12	21.93	19.93
217197CH	SDM30-48S15	36-72V	+15V@2000mA	30W	2x1.8x0.62	8	1.0	1.0	100	24.79	22.53	20.48	18.62

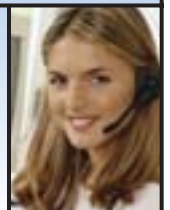
☉ Blue Part No. = Limited Quantity Available

See Our Selection  
of Prototyping  
PC Boards  
on pages 245-247



Order Anytime, Day or Night

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take your order 24x7x365 by  
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# 60 to 150-Watt Isolated DC-to-DC Converters

Color Code Legend  
New Sale Lower\$ QtySave

## 60-Watt Open Frame

- Isolation voltage: 1500VDC
- 100% burn-in test
- Protection: short-circuit, over-current & over-voltage
- Remote ON/OFF
- Working temperature: -40 to +100°C
- No minimum load
- Output trim
- Two-year warranty

The EXQ60 delivers very high output current at low voltages, and excellent useable power density for today's high-end applications. The models offered feature an input voltage range of 33 to 75VDC and are available in output voltages of 2.5V/3.3V and 3.3V/5V. The output voltage on each model is adjustable from 90% to 110% of the nominal value. Typical efficiencies for the models are 90% for the 2.5V/3.3V and 91% for the 3.3V/5V versions. Over-current and over-voltage protection features are included as standard. With full international safety approval including EN60950 and UL1950, the EXQ60 reduces compliance cost and time to market.



UL US

**SALE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power				1	10	25	100
218894CH	EXQ60-48D3V3-2V5-R	33-75V	+2.5V@16A; +3.3V@12A	40W	2.3x1.5x0.5	7	60 mV p-p	\$76.99	\$73.23	\$69.57	\$66.09
218907CH	EXQ60-48D05-3V3-R	33-75V	+3.3V@15A; +5V@12A	60W	2.3x1.5x0.5	7	60 mV p-p	\$76.99	\$73.23	\$69.57	\$66.09

Blue Part No. = Limited Quantity Available

## 50, 100 & 150-Watt Enclosed

- Isolation voltage: 1500VDC
- One-year warranty
- 2:1 wide input range
- 105°C output capacitor
- Mounting hardware: use P/Ns 222156CH & 222172CH; see [www.Jameco.com](http://www.Jameco.com) for specifications
- Input filter: Pi-network
- Shielded metal case
- Working temperature: -10° to +60°C
- Protection: short-circuit, overload & over-voltage
- 100% burn-in test
- Free-air convection cooling



CE

**Quantity SAVE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
212548CH	SD-50A-5	9-18V	+5V@10A	50W	see <a href="http://www.Jameco.com">www.Jameco.com</a>	5	0.5	0.5	100	\$35.79	\$32.53	\$29.58	\$26.89
212530CH	SD-50B-12	19-36V	+12V@4.2A	50.4W	see <a href="http://www.Jameco.com">www.Jameco.com</a>	5	0.3	0.3	120	51.95	46.76	37.40	28.05
212513CH	SD-50B-24	19-36V	+24V@2.1A	50.4W	see <a href="http://www.Jameco.com">www.Jameco.com</a>	5	0.2	0.2	150	35.79	32.21	25.77	24.15
212505CH	SD-50C-12	36-72V	+12V@4.2A	50.4W	see <a href="http://www.Jameco.com">www.Jameco.com</a>	5	0.3	0.3	120	51.95	39.99	36.99	32.99
216565CH	SD-100B-12	19-36V	+12V@8.5A	102W	see <a href="http://www.Jameco.com">www.Jameco.com</a>	7	0.3	0.3	120	72.95	65.66	52.52	39.39
212468CH	SD-100C-12	36-72V	+12V@8.5A	102W	see <a href="http://www.Jameco.com">www.Jameco.com</a>	7	0.3	0.3	120	63.95	53.99	50.99	44.99
217269CH	SD-150B-12	19-36V	+12V@12.5A	150W	see <a href="http://www.Jameco.com">www.Jameco.com</a>	7	0.5	0.5	120	82.95	74.66	59.72	44.79

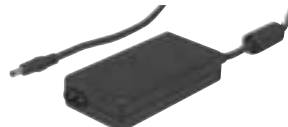
## AC-to-DC Regulated Switching Table-Top Power Supplies

We will change any power plug (pg 121) on any table-top power supply (100 pc. minimum).

See page 182 for International Power Cords



237059CH



211300CH



249041CH



211174CH



DIN M

**SALE**

Polarity 1	+	—	—	(center negative)
	Female	Male		
Polarity 2	—	—	+	(center positive)

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Quantity SAVE Lower \$\$\$			
				Pwr (W)	Volts (VDC)/ Current (A)									Pricing			
														1	10	50	100
2-Wire AC Input – Regulated Switching																	
12-24 Watt	221591CH	Mean Well	P30B-0P2JU	12	+3.3/3.6	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	\$17.79	\$16.17	\$14.70	\$13.36
	237059CH	Cisco	ADP-12GB	12.5	+5/2.5	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	3.5 x 2.3 x 1.2	6'/3	0.6	UL/CUL/TUV/CE	14.95	13.49	12.15	10.89
	249050CH	Phihong	PSA15W-050	12.5	+5/2.5	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.3 x 2.6 x 1.0	6'/3	0.4	UL/CSA/TUV/CE	19.49	17.75	16.39	14.55
	211300CH	Artesyn	SSL20-7605	20	+5/4.0	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.3 x 1.0	6'/3	1.5	UL/CSA/VDE/CE	24.95	22.46	17.96	13.11
	195805CH	Horizon	DCR920F12	18	+9/2.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	195768CH	Horizon	DCR920F52	18	+9/2.0	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	22.95	20.66	16.52	15.55
	249041CH	Phihong	PSA15W-120	15	+12/1.25	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	4.3 x 2.6 x 1.0	6'/3	0.3	UL/CSA/TUV/CE	19.49	17.75	16.39	14.55
	242958CH	Mean Well	G15B-3P2JR15	15	+12/1.3	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.3 x 1.6	6'/6'	0.5	UL/CSA/TUV/CE	19.49	17.69	16.39	14.51
	211174CH	Horizon	SC102TA1503	18	+15/1.2	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.4	6'/3	0.5	UL/CUL/TUV/CE	19.95	17.95	16.16	14.54
	196138CH	DVE	DSA-0283A	23	+5/1, +12/1.49 -5/43	100-240@47-63	5-pin DIN M	No	Black	4.9 x 2.7 x 1.5	6'/3	0.8	UL/CSA/TUV	16.95	15.25	12.19	9.15

\* See accessory table-top power cord chart on page 171 when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord  
▲ Manufacturer and Manufacturer Cross Reference Number may vary except for ReliaPro, Mean Well, Phihong and GlobTek

**Jameco's Got the Docs**

We offer free technical documents for most of the products we carry.  
Find them easily on the product spec page @ [www.Jameco.com](http://www.Jameco.com).

# AC-to-DC Regulated Switching Table-Top Power Supplies

**SALE**

We will change any power plug (pg 121) on any table-top power supply (100 pc. minimum).

**Quantity SAVE**

**Lower \$\$\$**

See page 182 for International Power Cords



230498CH



159353CH



243011CH



206455CH



DIN M

Polarity 1  $\oplus$   $\ominus$  (center negative)



Female



Male

Polarity 2  $\ominus$   $\oplus$  (center positive)

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing			
				Pwr (W)	Volts (VDC)/ Current (A)									1	10	50	100
2-Wire AC Input – Regulated Switching																	
25-65 Watt	220311CH	Horizon	SL120300	36	+12/3.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.0 x 1.2	6'/3	0.6	UL/CUL/TUV/CE	\$29.95	\$26.95	\$24.29	\$21.85
	220441CH	Horizon	SL120300RT	36	+12/3.0	100-240@50-60	2.5mm x 5.5mm F 2†	Yes	Black	4.3 x 2.0 x 1.2	6'/3	0.6	UL/CUL/TUV/CE	29.95	26.96	21.56	16.17
	224055CH	Horizon	SL120300-4.5	36	+12/3.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.0 x 1.2	4.5'3	0.6	UL/CUL/TUV/CE	29.95	26.96	24.26	20.21
	230498CH	Phihong	PSA60W-120	50	+12/4.2	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 2.5 x 1.3	6'/3	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	28.08
	230501CH	Phihong	PSA60W-180	60	+18/3.3	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 2.5 x 1.3	6'/3	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	28.08
	221612CH	Mean Well	P30B-6P2JU	27	+24/1.1	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CUL/TUV/CE	25.95	23.35	20.99	18.99
	229841CH	Phihong	PSA60W-240	60	+24/2.5	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 2.5 x 1.3	6'/3	0.5	UL/CUL/TUV/CE	36.49	31.02	23.26	17.45
	288534CH	EOS	ZVC65SG2410	65	+24/2.7	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.2 x 1.7 x 1.2	4'/3	0.4	UL/CUL/CE/DE	21.59	19.60	17.82	16.20
205911CH	Delta	ADP-25HB	25	+30/0.83	100-125@50-60	2.1mm x 5.5mm F 2	No	Black	3.5 x 2.4 x 1.2	6'/7	1.1	UL/CUL	17.49	15.75	12.59	9.45	
3-Wire AC Input – Regulated Switching																	
5-20 Watt	221567CH	Mean Well	P40A-0P2JU	15	+3.3/4.5	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CUL/TUV/CE	<del>\$29.95</del> \$22.99	\$20.69	\$18.83	\$16.97
	308700CH	Be-Well	ZD0001F	5	+5/1.0	100-240@50-60	2.1mm x 5.5mm F 2†	No	Black	4.2 x 2.0 x 1.6	6'/2	0.4	UL/CUL/TUV/CE	16.95	15.66	14.76	13.86
	309876CH	Go Forward	G112-USO520	10	+5/2.0	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	2.6 x 1.9 x 1.3	6'/2	0.4	UL/CUL/TUV/CE	17.75	14.37	12.57	11.97
	311802CH	Li Shin	LSE0103B0510	10	+5/2.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	3.7 x 2.0 x 1.2	6'/2	0.4	UL/CUL/TUV/CE	13.89	11.29	9.95	9.65
	196218CH	GlobTek	GT210891005T3	10	+5/2.0	120-240@50-60	2.1mm x 5.5mm F 2	No	Black	3.4 x 1.9 x 1.3	6'/2	0.4	UL/CUL/TUV/CE	19.95	17.95	16.15	14.55
	305154CH	Mean Well	G15-IP2JU	12	+5/2.4	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.3 x 1.3	6'/6	0.4	UL/CUL/TUV/CE	13.59	12.37	11.24	10.22
	213583CH	Mean Well	P30A-1P2JU	20	+5/4.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.7	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	303538CH	I.T.E.	UP01411120	12	+12/1.0	100-250@50-60	2.5mm x 5.5mm F 2	No	Black	4.1 x 2.5 x 1.3	4'/2	0.4	UL/CSA/TUV/CE	16.75	13.37	11.70	11.14
	228988CH	Phihong	PSA18U-120	18	+12/1.5	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.2 x 1.2	6'/2	0.5	UL/CUL/TUV/CE	22.95	20.65	18.59	16.75
	216549CH	Mean Well	KWM020-1812F	18	+12/1.5	100-240@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.5	6'/6	0.4	UL/CUL/TUV/CE	22.95	20.65	18.59	16.75
	216531CH	Mean Well	KWM12F-P2MU	18	+12/1.5	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.5	6'/6	0.4	UL/CUL/TUV/CE	26.95	24.26	19.40	14.55
	320231CH	3-Com	10030973	18	+12/1.5	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.1 x 2.0 x 1.4	6'/2	0.4	UL/CUL/TUV/CE	15.19	14.15	13.45	12.69
	298062CH	I.T.E.	UP01831120	18	+12/1.5	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	3.7 x 2.2 x 1.3	7'/2	0.4	UL/CUL/CE	15.45	12.21	10.68	10.17
	303546CH	I.T.E.	UP01811180	18	+18/1.5	100-250@50-60	2.1mm x 5.5mm F 2	No	Black	4.1 x 2.5 x 1.3	4'/2	0.4	UL/CSA/TUV/CE	19.55	17.96	16.70	15.44
	243002CH	Mean Well	G15A-6P2JU	15	+24/0.6	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.3 x 1.3	6'/6	0.4	UL/CUL/TUV/CE	19.95	17.95	16.15	14.55
159353CH	Mean Well	KA60AU	17	+5/1, ±12/0.5	100-240@50-60	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.5	6'/5	1.0	UL/CSA/TUV	36.95	33.26	26.60	21.89	
21-29 Watt	213575CH	Mean Well	P40A-1P2JU	25	+5/5.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.7	UL/CUL/TUV/CE	29.95	26.96	21.56	16.97
	211019CH	Mean Well	KA52BJF5	25	+9/2.78	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/2	0.9	UL/CSA/TUV/CE	29.95	26.96	21.56	16.17
	211027CH	Mean Well	KA52BMODJD4	25	+9/2.78	100-240@47-63	2.1mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/6	0.9	UL/CSA/TUV/CE	17.85	16.07	12.85	9.64
	243011CH	Mean Well	P30A-41P2JU	27	+15/1.8	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.4	6'/6	0.8	UL/CUL/TUV/CE	25.95	23.39	21.05	18.95
	206455CH	Ault	SC100	25	+16/1.56	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/6	1.2	UL/CUL/TUV/CE	17.95	16.16	12.92	9.69
	221680CH	Mean Well	P30A-6P2JU	27	+24/1.1	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CSA/TUV/CE	26.95	24.29	21.85	19.65
	215087CH	Mean Well	P30A-8P2JU	27	+48/0.56	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.7	UL/CSA/TUV/CE	21.89	19.89	18.09	16.59
	196269CH	Everglow	PSU25A13	25	+5/2.5, +12/1.0	100-240@47-63	4-pin mini DIN M	No	Black	4.2 x 2.6 x 1.4	6'/4	1.2	UL/CUL/TUV/CE	27.95	25.19	22.65	20.39
	221751CH	Mean Well	P25A13-R1BU	25	+5/2.5, +12/1.0	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CSA/TUV/CE	27.95	25.19	22.69	20.39
	190650CH	Ault	SW300	25	+5/4, +12/1.0	100-250@50-60	5-pin DIN M	No	Black	5.9 x 3.4 x 2.1	6'/2	1.5	UL/CSA/TUV	8.85	7.96	6.37	4.78
	221760CH	Mean Well	P25A14-R1BU	25	+5/2.5, +15/0.8	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CUL/TUV/CE	<del>\$21.59</del> 19.69	17.92	16.29	14.81
	190959CH	Mean Well	P25A13D-R1U	26	+5/2.5, +12/0.8, -12/0.3	100-240@47-63	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.4	6'/6	1.1	CUL/TUV/CE	32.95	29.69	26.69	24.05
221719CH	Mean Well	P25A14E-R1BU	25	+5/2.5, +15/0.3, -15/0.3	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CUL/TUV/CE	32.95	29.69	26.69	24.05	

\* See accessory table-top power cord chart on page 171 when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord † Right angle  
▲ Manufacturer and Manufacturer Cross Reference Number may vary except for ReliaPro, Mean Well, Phihong and GlobTek ⚡ Blue Part No. = Limited Quantity Available

3-Wire Table-Top Power Supplies Continued on Page 170

## Compact DC Regulated Switching Power Adapter with Detachable Plugs

This state-of-the-art switching power adapter offers some major advantages such as stabilized outputs, short circuit and overload protection, compact design, and low idle consumption versus typical wall adapters.

- 8 plugs: 2.5mm M mono, 3.5mm M mono, 1.0mm x 3.0mm F, 1.3mm x 3.5mm F, 1.7mm x 4.0mm F, 2.1mm x 5.0mm F, 1.5mm x 5.5mm F, and 2.5mm x 5.5mm F
- Selectable output voltages: 3 / 4.5 / 6 / 7.5 / 9 / 12 VDC @ 800mA (regulated) with 1.5A max. output

See pages 172-177 for our selection of wall adapters.



Part No.	Description	Input Voltage	Power Output	Efficiency	Size	Weight	Price
239564CH	Compact power adapter	100-240VAC	10W	80%	2.9"H x 1.2"W x 1.9"D	0.2 lbs.	\$22.95

Color Code Legend  
New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242

169

# AC-to-DC Regulated Switching Table-Top Power Supplies (Continued)

Color Code Legend  
New Sale Lower\$ QtySave

See page 182 for International Power Cords

We will change any power plug (pg 121) on any table-top power supply (100 pc. minimum).

NEW



229032CH



203043CH



211191CH



211107CH



172064CH



Polarity 1  $\oplus \ominus \ominus$  (center negative)



Female

Polarity 2  $\ominus \oplus \oplus$  (center positive)



DIN M

Quantity SAVE

## 3-Wire AC Input – Regulated Switching (Continued)

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing			
				Pwr (W)	Volts (VDC)/ Current (A)									1	10	50	100
30-40 Watt	320080CH	GlobTek	TR9CA6000LCP-Y	30	+5/6.0	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.7 x 2.4 x 1.3	6'/2	0.7	UL/CUL/TUV/CE	\$24.69	\$22.89	\$20.59	\$18.55
	221516CH	Mean Well	U45S102-P2JU	40	+5/8.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	4'/6	1.4	UL/CUL/TUV/CE	37.95	34.19	30.79	27.69
	206527CH	Mean Well	P40A-1-1P25U	30	+7.5/4.0	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	4.3 x 2.7 x 1.5	6'/6	1.5	UL/CUL/TUV/CE	29.95	26.95	23.95	21.95
	229008CH	Phihong	PSA31U-120	30	+12/2.5	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	155213CH	Mean Well	P40A-3P2JU	40	+12/3.3	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.7	UL/CUL/TUV	35.95	32.36	29.12	26.21
	297692CH	Mean Well	P40A-3P2MU	40	+12/3.3	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.7	UL/CUL/VDE/CE	35.95	32.36	29.12	26.21
	355063CH	ReliaPro	JR-TT-40-12	40	+12/3.33	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/2	0.6	UL/CUL/TUV/CE	29.39	23.51	20.58	19.52
	229016CH	Phihong	PSA31U-150	30	+15/2.0	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	206471CH	Mean Well	P40A-4AR01U	30	+15/2.0	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	5.6 x 2.9 x 1.6	6'/6	1.2	UL/CUL/TUV/CE	26.95	24.26	19.40	17.46
	221575CH	Mean Well	P40A-4P2JU	40	+15/2.7	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CUL/TUV/CE	33.95	30.56	27.50	24.75
	230480CH	Phihong	PSA31U-180	30	+18/1.6	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.2 x 1.2	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	20.75
	229024CH	Phihong	PSA31U-240	30	+24/1.25	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	181884CH	Mean Well	P40A-6P2JU	40	+24/1.7	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.7	UL/TUV/CE	35.95	32.36	29.12	26.21
	297756CH	Mean Well	P40A-6P2MU	40	+24/1.7	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.7	UL/CUL/VDE/CE	35.95	32.36	29.12	26.21
41-59 Watt	229032CH	Phihong	PSA31U-480	30	+48/0.63	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.6	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	221583CH	Mean Well	P40A-8P2JU	40	+48/0.8	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6	0.8	UL/CUL/TUV/CE	33.95	30.56	24.44	18.33
	203043CH	Ault	SC200	32	+5/4, +12/1	100-240@50-60	5-pin DIN M	No	Black	5.0 x 3.0 x 1.6	6'/2	1.3	UL/CSA/CE	19.95	17.95	14.36	10.77
	211191CH	Westinghouse	FSA30P31	30	+5/3, ±12/0.8	95-264@47-63	5-pin DIN M	No	Black	5.8 x 3.0 x 1.7	4'/2	2.1	UL/CSA/TUV	25.95	23.35	18.68	14.01
	221487CH	Mean Well	SPU50-1U	50	+5/10	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6	2.0	UL/CUL/TUV/CE	36.95	33.95	31.95	29.49
	221541CH	Mean Well	U45S108-P2JU	50	+24/2.1	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6	1.3	UL/CSA/TUV/CE	34.95	31.46	27.50	23.54
	221559CH	Mean Well	U45S111-P2JU	48	+48/1.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6	1.3	UL/CUL/TUV/CE	34.95	31.46	27.50	23.54
	237366CH	Mean Well	P50A14E-R1BU	42	+5/3.5; +15/1.2 -15/0.3	100-240@47-63	5-pin DIN M	Yes	Black	5.8 x 3.0 x 1.7	4'/6	1.2	UL/CUL/TUV/CE	36.95	33.25	29.95	28.85
	221701CH	Mean Well	P50A13D-R1BU	50	+5/4.0, +12/2.0 -12/0.5	90-264@47-63	5-pin DIN M	Yes	Black	5.7 x 3.0 x 1.7	4'/6	1.5	UL/CUL/TUV/CE	48.95	44.09	39.69	35.69
	215132CH	Mean Well	U45T302-R1BU	42	+5/5, +12/1, -12/0.3	90-264@47-63	5-pin DIN M	Yes	Black	5.8 x 3.1 x 1.8	4'/6	1.4	UL/CUL/TUV/CE	49.95	44.99	40.49	36.45
60-80 Watt	211107CH	Fortron	FSA55P31	45	+5/5, +12/3 -12/0.5	85-264@50-60	5-pin DIN M	Yes	Black	7.0 x 3.8 x 2.2	4'/2	1.6	UL/CSA/TUV	49.95	44.96	35.96	26.24
	155230CH	Mean Well	SPU50-3U	60	+12/5.0	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6	1.3	UL/CSA/TUV	49.95	44.95	39.95	35.95
	297221CH	Mean Well	SPU50-3P2MU	60	+12/5.0	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6	1.3	UL/CUL/TUV/CE	49.95	44.95	39.95	35.95
	355071CH	ReliaPro	JR-TT-66-12	66	+12/5.5	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	5.8 x 3.0 x 1.7	6'/2	1.2	UL/CUL/TUV/CE	34.95	32.21	28.69	27.31
	182959CH	Elpac	W7212	72	+12/6.0	95-250@47-63	5-pin DIN F	—	Black	6.2 x 3.8 x 2.6	6'/6	2.5	UL/CSA/CE	54.95	49.49	39.59	29.69
	221428CH	Mean Well	U65S105-P2JU	80	+12/6.7	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6	2.0	UL/CUL/TUV/CE	64.95	58.46	52.61	43.84
	221436CH	Mean Well	U65S106-P2JU	80	+15/5.33	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	243045CH	Mean Well	P66A-5P2JU	66	+18/3.66	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.8 x 3.0 x 1.7	6'/6	1.2	UL/CUL/TUV/CE	38.49	34.91	32.21	29.55
	221444CH	Mean Well	U65S107-P2JU	80	+18/4.4	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	161605CH	Mean Well	SPU50-6U	60	+24/2.5	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.6	1'9/16	1.3	UL/CSA/TUV	44.95	39.95	35.95	32.95
	297633CH	Mean Well	SPU50-6P2MU	60	+24/2.5	95-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6	1.3	UL/CUL/TUV/CE	44.95	39.95	35.95	32.95
	355055CH	ReliaPro	JR-TT-66-24	66	+24/2.75	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	5.8 x 3.0 x 1.7	6'/2	1.2	UL/CUL/TUV/CE	34.95	32.21	28.68	27.31
	221452CH	Mean Well	U65S108-P2JU	80	+24/3.3	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	355080CH	ReliaPro	JR-TT-66-48	66	+48/1.37	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	5.8 x 3.0 x 1.7	6'/2	1.2	UL/CUL/TUV/CE	34.95	32.21	28.69	27.31
	172064CH	Mean Well	SPU50-9U	60	+48/1.25	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.7	6'/6	1.3	UL/CSA/TUV	44.95	40.49	36.45	32.79
	221461CH	Mean Well	U65S111-P2JU	80	+48/1.7	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49

\* See accessory table-top power cord chart on page 171 when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord. Blue Part No. = Limited Quantity Available  
▲ Manufacturer and Manufacturer Cross Reference Number may vary except for ReliaPro, Mean Well, Phihong and GlobTek



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# AC-to-DC Regulated Linear Table-Top Power Supplies

See page 182 for International Power Cords

We will change any power plug (pg 121) on any table-top power supply (100 pc. minimum).

Quantity SAVE



DIN M



Stripped



211060CH



265295CH



243088CH



243109CH



240127CH

Polarity 1 ⊕ ⊖ ⊖ (center negative)

Female

Male

Polarity 2 ⊖ ⊖ ⊕ (center positive)

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing			
				Pwr (W)	Volts (VDC)/ Current (A)									1	10	50	100
2-Wire AC Input – Regulated Linear																	
5-25	211060CH	Pacific Data	DV-51AAT	5	+5/1	120@60	2.1mm x 5.5mm rt angle F 2	No	Black	3.4 x 2.7 x 2.2	6'6'6'	1.7	UL/CSA	\$11.95	\$10.76	\$8.60	\$6.45
	174844CH	Jameco	DCR2410F12	24	+24/1	120@60	2.1mm x 5.5mm F 2	No	Black	4.4 x 3.0 x 2.5	6'6'	2.6	No UL	16.95	15.26	13.73	11.44
3-Wire AC Input – Regulated Linear																	
5-20 Watts	265295CH	—	T5121000/37	12.2	+5/1, ±12/0.3	120@60	5-pin DIN M	No	Black	4.5 x 3.0 x 2.5	6'6'	2.6	UL/CSA	\$9.69	\$8.72	\$7.85	\$6.56
	154624CH	Motorola	5712-305-4C3E†	5.6	+5/0.5, ±12/0.13	120@60	8-pin mini DIN M	No	Black	2.9 x 2.6 x 1.9	6'7"2	1.2	UL/CSA	12.95	11.66	9.32	6.99
	318756CH	Adcom	WM113TT	13	+5/0.86, ±12/0.3	115@60	5-pin DIN M	No	Black	4.9 x 3.0 x 2.2	6'6'	1.3	UL/CSA	31.99	27.15	25.75	24.45
	243088CH	Regal	RJM-551228	17.4	+5/0.9, ±12/0.62 5/0.2, -28/0.16	120@60	6-pin DIN M	No	Black	5.9 x 3.6 x 2.6	6'6'	3.4	UL/CUL	\$46.95 8.49	7.70	7.00	6.36

† Wall-Mount \* See accessory table-top power cord chart below when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for ReliaPro, Mean Well, Pihong and GlobTek

SALE

## AC-to-DC Unregulated Table-Top Power Supplies

Quantity SAVE

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing			
				Power (W)	Volts (VDC)/Current (A)									1	10	50	100
2-Wire AC Input – Unregulated																	
9-30 Watts	190051CH	APS	APS48EA114	10	+7/1.5	120@60	2.5mm x 5.5mm F 2	No	Black	3.4 x 2.3 x 1.9	6'6"	1.9	UL/CUL	\$9.95	\$8.99	\$7.19	\$5.39
	243109CH	Regal	JK-91001-N	9	+9/1.0	120@60	Stripped & Tinned	No	Black	3.3 x 2.2 x 1.9	6'6"	1.2	UL/CSA	13.95	12.56	11.30	10.17
	203182CH	Brother	A71222D	25	+11.5/2.2	120@60	2.1mm x 5.5mm F 1	No	Black	4.1 x 2.8 x 2.2	6'6"	2.0	UL/CSA	\$5.45 3.85	3.48	3.17	2.88
	354941CH	Terayon	AD-121ADT	12	+12/1.0	120@60	2.1mm x 5.5mm F 2	No	Black	3.2 x 2.3 x 1.9	6'6"	1.4	UL/CUL	14.95	13.46	12.11	10.90
	136565CH	Jameco	DDC1210P	12	+12/1.0	120@60	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'6"	1.2	No UL	13.95	12.56	10.04	7.53
	140880CH	Jameco	DC1215ST	18	+12/1.5	120@60	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'6"	1.5	UL	12.95	11.66	9.32	6.99
	143714CH	—	DC1220F1	24	+12/2.0	120@60	2.1mm x 5.5mm F 2	No	Black	3.8 x 2.8 x 2.3	6'6"	2.2	CUL-No UL	14.95	13.46	12.11	10.90
	143722CH	Jameco	DC1220F5	24	+12/2.0	120@60	2.5mm x 5.5mm F 2	No	Black	3.8 x 2.8 x 2.3	6'6"	2.2	CUL-No UL	12.95	11.69	10.55	9.49
	143731CH	—	DC1220M3	24	+12/2.0	120@60	3.5mm M 2	No	Black	3.8 x 2.8 x 2.3	6'6"	1.9	CUL-No UL	12.95	11.66	10.49	9.44
	220919CH	Jameco	EFU135170	23	+13.5/1.7	120@60	2.1mm x 5.5mm F 1	No	Black	3.4 x 2.7 x 2.1	6'6"	1.8	CUL-No UL	4.85	4.45	3.99	3.65
	240127CH	—	FW3698	24	+24/1	120@60	2.5mm x 5.5mm F 2	No	Black	4.0 x 3.0 x 2.7	6'6"/7'2"	2.5	No UL	14.79	13.29	11.99	9.95
	139096CH	Jameco	DC2412F1	29	+24/1.2	120@60	2.1mm x 5.5mm F 2	No	Black	4.4 x 3.1 x 2.6	6'6"	2.5	No UL	14.95	13.46	10.76	8.07
	173665CH	Skyнет	DND-3005	15	+30/0.5	120-127@60	2.5mm x 5.5mm F 2	No	Black	3.0 x 2.5 x 2.2	5'9"/3'2"	1.4	UL/CUL	13.29	11.96	9.57	7.18
	205920CH	Skyнет	DND-3012	30	+30/1.0	120-127@50-60	2.5mm x 5.5mm F 2	No	Black	4.0 x 2.9 x 2.5	6'6"	1.7	UL/CUL	8.95	8.06	6.44	4.83
3-Wire AC Input – Unregulated																	
15-25	319222CH	—	SPU15A-3	15	+12/1.25	120@60	Stripped & Tinned	Yes	Black	3.6 x 1.5 x 1.4	15'3"/2'	—	UL/CUL/CE	\$15.65	\$14.45	\$13.75	\$12.99
	157956CH	Everglow	EFU120150	18	+12/1.5	120@60	2.5mm x 5.5mm F 2	No	Black	3.4 x 2.7 x 2.2	6'6"	2.0	UL	10.95	9.86	8.87	7.39
	196306CH	—	A51813D	23	+18/1.3	120@60	2.5mm x 5.5mm F 2	No	Black	3.6 x 2.4 x 2.0	6'6"	1.8	UL/CSA	12.95	11.69	9.34	7.04

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for ReliaPro, Mean Well, Pihong and GlobTek \* Blue Part No. = Limited Quantity Available

\* See accessory table-top power cord chart below when AC cord needed; refer to 1, 2 or 3 in "Cord (DC/AC)" column above for correct power cord



38041CH



38050CH

### \*\* Accessory Power Input Cords for Table-Top Power Supplies



189587CH

Quantity SAVE

Part No.	Ref. No.**	Description	Color	AWG	Certification	Cord Length	Wt. (lbs.)	Cord Type	1	10	100	250
38041CH	1	3-conductor power cord	Beige	18/3	UL/CSA	6'	0.4	SVT	\$3.49	\$3.15	\$2.79	\$2.49
38050CH	2	3-conductor power cord	Black	18/3	UL/CSA	6'	0.4	SVT	3.75	3.29	2.89	2.17
189587CH	3	2-conductor power cord	Black	18/2	UL/CSA	6'	0.3	SPT	2.95	2.65	2.39	2.15

For Additional Power Cords See Page 180.

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171

# Medical Table-Top & Wall Switching AC-to-DC Power Supplies

Color Code Legend  
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GlobTek®

## AC-to-DC Medical Table-Top Regulated Switching Power Supplies

- Input voltage: 90-264VAC @ 47-63Hz
- 3-wire AC input
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Cord length (DC/AC): 6' / use P/N 38050CH
- Size: 2.9"L x 2.0"W x 1.6"H
- UL/CUL/TUV/CE approved for medical applications



Lower\$\$\$

Part Number	Product Number	Power (W)	Output Volts (VDC)/Current (A)	Pricing			
				1	10	50	100
230658CH	TR9CA2600CP	13.0	+5/2.6	\$32.95	\$29.66	\$23.72	\$22.48
230682CH	TR9CE1250CP	15.6	+12/1.3	32.95	29.65	26.69	23.99
230691CH	TR9CG1200CP	18.0	+15/1.2	32.95	29.65	26.69	23.99
230711CH	TR9CI750CP	16.8	+24/0.7	32.95	29.66	23.72	22.48
230738CH	TR9CA6000LCP	30.0	+5/6.0	52.95	47.66	38.12	32.08
230762CH	TR9CE4000LCP	49.2	+12/4.0	52.95	47.65	42.89	38.59
230771CH	TR9CG3333LCP	49.5	+15/3.3	52.95	47.66	38.12	32.08
230797CH	TR9CI2100LCP	50.4	+24/2.1	52.95	47.66	38.12	32.08

GlobTek®

## AC-to-DC Medical Regulated Switching Wall Adapters

- Input voltage: 100/240VAC @ 47-63Hz
- 3-prong input plug
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Output cord length: 6'
- Size: 2.9"H x 1.9"W x 1.6"D
- Agency approval: UL/CUL/TUV/CE approved for medical applications



SALE

Part Number	Product Number	Power (W)	Output Volts (VDC)/Current (A)	Pricing			
				1	10	50	100
230818CH	WR92A2600LCP	13.0	+5@2.6	\$30.95	\$26.99	\$24.52	\$20.27
230842CH	WR92E1250LCP	15.6	+12@1.3	30.95	27.86	25.17	22.48
230851CH	WR92G1200LCP	18.0	+15@1.2	\$30.95	26.99	24.52	20.27
230877CH	WR92I750LCP	16.8	+24@0.75	\$30.95	26.99	24.52	20.27

For Open-Frame Medical Power Supplies see page 151.

## AC-to-DC Regulated Switching Wall Adapters

### Interchangeable Plug Wall Adapters

- Field changeable AC Plugs (sold separately, see below)
- Power-On LED
- Input voltage: 90-264VAC@47-63Hz
- Output connector: 2.1mm x 5.5mm female center positive

- Regulated output
- Double insulated
- Class B EMI



228849CH shown with plug clip included



- Efficiency: 60% min.
- Weight: 0.3 lbs.

228814CH shown with plug clip not included

SALE



### 4 to 5-Watt Wall Adapters (Plug clip required, see below)

- Applications: PDAs, digital cameras, MPEG players, personal electronics
- Dimensions: 2.8"L x 1.8"W x 1.2"H

Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228734CH	Phihong	PSA05R-033	4.0	3.3	1.2	50	±1%	±5%	\$16.69	\$15.15	\$13.79	\$12.44
228742CH	Phihong	PSA05R-050	5.0	5.0	1.0	50	±1%	±5%	\$16.69	14.89	13.53	12.30
228751CH	Phihong	PSA05R-090	5.0	9.0	0.56	90	±1%	±5%	16.69	15.15	13.79	12.44
228769CH	Phihong	PSA05R-120	5.0	12.0	0.42	120	±1%	±5%	\$16.69	14.89	13.53	12.30

### 6 to 10-Watt Wall Adapters (Plug clip required, see below)

- Applications: wireless communications, portable equipment, digital camera, peripherals, networking
- Dimensions: 3.4"L x 2.1"W x 1.4"H
- Efficiency: 65% typical
- Weight: 0.3 lbs.

SALE



Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228785CH	Phihong	PSA11R-033	6.6	3.3	2.0	50	±1%	±5%	\$16.99	\$15.42	\$14.02	\$12.75
228793CH	Phihong	PSA11R-050	10.0	5.0	2.0	50	±1%	±5%	16.99	15.42	14.01	12.74
228806CH	Phihong	PSA11R-090	10.0	9.0	1.1	90	±1%	±5%	16.99	15.42	14.01	12.74
228814CH	Phihong	PSA11R-120	10.0	12.0	0.83	120	±1%	±5%	17.69	16.07	15.15	14.24

### 15 to 20-Watt Wall Adapters with LoadSense™ (Plug clip required, see below)

- Senses and controls the voltage out the connector, eliminating the effect of a voltage drop in the cable
- Applications: peripherals, portable equipment, gaming machines, point-of-sale equipment, network equipment
- Dimensions: 3.9"L x 2.5"W x 1.4"H
- Efficiency: 70% Typical
- Weight: 0.6 lbs.

SALE



Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228831CH	Phihong	PSA21R-050	15.0	5.0	3.0	50	±1%	±2%	\$26.19	\$23.80	\$21.64	\$19.67
228849CH	Phihong	PSA21R-120	20.0	12.0	1.67	120	±1%	±2%	27.15	24.65	23.32	21.99
228857CH	Phihong	PSA21R-150	20.0	15.0	1.33	150	±1%	±2%	26.19	23.80	21.64	19.67
229745CH	Phihong	PSA21R-180	20.0	18.0	1.11	180	±1%	±2%	26.19	23.80	21.64	19.67
228873CH	Phihong	PSA21R-240	20.0	24.0	0.83	240	±1%	±2%	26.19	23.80	21.64	19.67

### AC Plug Clips and Plug Clip Kits (sold separately, required for above adapters)

Part No.	Manufacturer	Product No.	Description	1	10	50	100
229155CH	Phihong	RPA	USA Plug	\$0.53	\$0.51	\$0.50	\$0.49
229163CH	Phihong	RPE	European Plug	.61	.59	.58	.57
229171CH	Phihong	RPK	UK Plug	.99	.97	.94	.91
229180CH	Phihong	RPKIT	Kit w/ RPA/RPE/RPK/RPS (AUST)	2.65	2.39	2.32	2.25



Blue Part No. = Limited Quantity Available

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## "Slim Line" Regulated Switching Wall Adapters

Compact in size and lightweight, they are the perfect power solution in all those applications where space is critical. And their high efficiency satisfies requirements for minimizing power losses. You no longer have to deal with traditional wall adapters that block unused outlets in wall plates and power strips/surge protectors.



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With Your Company Name  
Call 1-800-831-4242 for Details



- 2-wire AC input
- Input voltage: 100 – 240VAC@47-63Hz
- Output cord length: 6'
- Output connector: 2.1mm x 5.5mm F2 (center positive)

- Color: black
- One year warranty

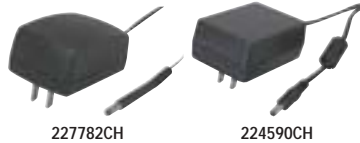


Part Number	Product Number	Output Rating		Size (H"xW"xD")	Wt. (lbs.)	Pricing			
		Volts (VDC)	Current (mA)			1	10	50	100
251563CH	S08AA033150	3.3	1500	2.5x1.1x1.7	0.2	\$10.95	\$9.94	\$9.17	\$8.85
251598CH	S15AA033250	3.3	2500	2.9x1.3x2.2	0.3	11.49	10.43	9.63	9.29
252700CH	S08AB050050	5.0	500	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252718CH	S08AB050100	5.0	1000	2.5x1.1x1.7	0.2	10.95	9.94	9.17	8.85
252726CH	S08AB050150	5.0	1500	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
252734CH	S15AB050250	5.0	2500	2.9x1.3x2.2	0.3	11.95	10.85	9.99	9.64
252742CH	S08AD0900250	9.0	250	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252751CH	S08AD090050	9.0	500	2.5x1.1x1.7	0.2	10.95	9.94	9.17	8.85
252769CH	S08AD090090	9.0	800	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
252777CH	S08AD090120	9.0	1200	2.9x1.3x2.2	0.3	11.95	10.85	9.99	9.64
252785CH	S15AS090170	9.0	1500	2.9x1.3x2.2	0.3	12.49	11.34	10.47	10.10
252793CH	S08AE120025	12.0	250	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48

Part Number	Product Number	Output Rating		Size (H"xW"xD")	Wt. (lbs.)	Pricing			
		Volts (VDC)	Current (mA)			1	10	50	100
252806CH	S08AE120050	12.0	500	2.5x1.1x1.7	0.2	\$10.95	\$9.94	\$9.17	\$8.85
252814CH	S08AE120070	12.0	600	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
252822CH	S15AE120100	12.0	1000	2.9x1.3x2.2	0.3	11.95	10.85	9.99	9.64
252831CH	S15AE120140	12.0	1250	2.9x1.3x2.2	0.3	12.95	11.76	10.85	10.47
252881CH	S08AF150013	15.0	130	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252890CH	S08AF150050	15.0	500	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
254756CH	S15AF150080	15.0	800	2.9x1.3x2.2	0.2	11.95	10.85	9.99	9.64
252902CH	S15AF150120	15.0	1000	2.9x1.3x2.2	0.3	12.95	11.76	10.85	10.47
252849CH	S08AH240013	24.0	130	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252890CH	S08AH240025	24.0	250	2.5x1.1x1.7	0.2	10.95	9.94	9.17	8.85
252865CH	S15AH240050	24.0	500	2.9x1.3x2.2	0.3	11.95	10.85	9.99	9.64
252873CH	S15AH240063	24.0	630	2.9x1.3x2.2	0.3	12.49	11.34	10.85	10.47

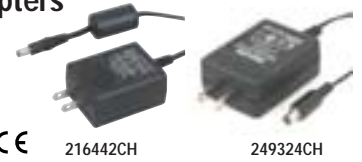
Blue = Limited Quantity Available

## 2-Wire AC Input – AC-to-DC Regulated Switching Wall Adapters



We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 121) on any DC wall adapter listed (100 pc. minimum).

Polarity 1 (center negative)  
Polarity 2 (center positive)



**SALE**

**Quantity SAVE**

Part Number	Brand	Product Number	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Input VAC @ Hz	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)								1	10	50	100
230543CH	Phihong	PSA05A-050	5	1000	2.1mm x 5.5mm F 2	90-264@47-63	2.4 x 1.8 x 1.0	Black	4'	0.4	UL/CUL	\$10.95	\$9.86	\$7.88	\$5.91
228881CH	Phihong	PSC10A-050	5	2000	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.09	11.88	11.12	10.36
210892CH	ReliaPro	EPA101MU	5	2000	2.5mm x 5.5mm F 2	100-240@50-60	3.2 x 2.4 x 1.3	Black	6'	0.4	UL/CUL	12.95	11.66	9.32	6.99
210893CH	ReliaPro	S15AB050200	5	2000	2.5mm x 5.5mm F 2	100-240@47-63	2.9 x 1.4 x 2.2	Black	6'	0.2	UL/CUL	12.95	11.69	10.49	8.75
236751CH	GlobTek	WR92A2600CCP	5	2600	2.1mm x 5.5mm F 2	100-240@50-60	2.9 x 1.9 x 1.6	Black	6'	0.5	UL/CUL/TUV/CE	13.49	12.15	10.95	9.85
319880CH	Mean Well	ES18U05-PIJ	5	3000	2.1mm x 5.5mm F 2	90-264@47-63	3.1 x 2.1 x 1.3	Black	6'	0.5	UL/CUL/CE	12.29	11.35	10.62	9.89
228937CH	Phihong	PSC15A-050	5	3000	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
228890CH	Phihong	PSC10A-090S	9	1100	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.79	11.99	10.99	10.49
228945CH	Phihong	PSC15A-090	9	1600	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
227782CH	Mean Well	KWM020-09B	9	1670	2.1mm x 5.5mm F 2	90-264@47-63	1.6 x 2.0 x 2.9	Black	6'	0.4	UL/CSA	13.55	12.29	11.35	9.89
319898CH	Mean Well	ES18U09-PIJ	9	2000	2.1mm x 5.5mm F 2	90-264@47-63	3.1 x 2.1 x 1.3	Black	6'	0.5	UL/CUL/CE	12.29	11.35	10.62	9.89
229753CH	Phihong	PSC10A-120S	12	830	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.89	10.99	10.59
228953CH	Phihong	PSC15A-120	12	1250	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
312864CH	Mean Well	ES18U12	12	1500	2.1mm x 5.5mm F 2	100-240@50-60	3.2 x 2.1 x 1.3	Black	6'	0.2	UL/CUL/CE	12.29	11.35	10.62	9.89
319919CH	Mean Well	ES18U15-PIJ	12	1500	2.1mm x 5.5mm F 2	90-264@47-63	3.1 x 2.1 x 1.3	Black	6'	0.5	UL/CUL/CE	12.29	11.35	10.62	9.25
228911CH	Phihong	PSC10A-150S	15	670	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.49	11.35	10.32	9.38
224590CH	Mean Well	L1SD15B-P1J	15	1000	2.1mm x 5.5mm F 2	90-240@50-60	3.2 x 2.2 x 1.3	Black	6'	0.5	UL/CSA	13.55	12.29	11.35	9.89
168487CH	Mean Well	KWM020188	18	1000	2.1mm x 5.5mm F 2	100-240@50-60	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL	17.95	16.19	13.75	10.35
228929CH	Phihong	PSC10A-240S	24	420	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	11.95	11.46	10.99	10.49
228970CH	Phihong	PSC15A-240	24	620	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
319927CH	Mean Well	ES18U24-PIJ	24	750	2.1mm x 5.5mm F 2	90-264@47-63	3.1 x 2.1 x 1.3	Black	6'	0.5	UL/CUL/CE	12.29	11.35	10.62	9.25

### Other Manufacturers — Limited Great Deals

225995CH	Delta Electronics	ADP-5DB	5	1000	2.5mm x 5.5mm F 2	100-120@50-60	2.5 x 1.8 x 1.1	Black	6'	0.2	UL	\$10.95	\$9.85	\$7.89	\$5.89
308048CH	Potrans	UWP010210500	5	1500	2.1mm x 5.5mm right angle F 2	100-240@60	2.8 x 1.4 x 2.1	Black	10'2"	0.5	UL/CUL	11.75	9.88	9.51	8.55
216442CH	AK II Power Supply	A05C1-05MP	5	1600	2.5mm x 5.5mm F 2	100-240@50-60	3.2 x 1.8 x 1.1	Black	6'	0.4	UL/CUL/CE	12.95	11.65	10.49	9.49
189190CH	Interex	EPA101MU-05B	5	2000	2.5mm x 5.5mm F 1	100-240@50-60	2.2 x 2.8 x 1.3	Black	6'	0.4	UL/CUL	12.49	11.24	8.99	6.74
305066CH	Ault	SC102TA0503B01	5	3000	2.5mm x 5.5mm F 2	100-240@47-63	2.9 x 2.0 x 1.6	Black	6'	0.5	UL/CUL	11.65	10.76	10.06	9.36
308671CH	Highpower	HPW-1009U	9	1110	2.1mm x 5.5mm F 2	100-240@50-60	3.0 x 2.0 x 1.2	Black	6'	0.3	UL/CUL/TUV/CE	11.89	10.97	10.24	9.50
249324CH	Philips	A600M101	12	500	2.1mm x 5.5mm F 2	100-240@50-60	2.4 x 1.8 x 1.0	Black	6'	0.4	UL/CSA	13.19	11.89	9.49	7.15
298054CH	DVE	DSA-009-12A	12	750	2.1mm x 5.5mm F 2	90-132@47-63	2.7 x 1.1 x 1.8	Black	6'	0.3	UL/CUL	11.89	10.97	10.24	9.49
235096CH	DVE	DSA-0151A-12S	12	1250	2.1mm x 5.5mm F 2	100-120@50-60	3.2 x 2.1 x 1.4	Black	6'	0.3	UL/CUL	13.49	12.14	9.71	7.28
320311CH	Gilat	E040105E	24	1670	2.1mm x 5.5mm F 2	100-240@50-60	3.9 x 2.4 x 1.6	Black	6'	0.7	UL/CUL	14.95	12.95	10.95	9.95

▲ Brand and product number may vary except for ReliaPro, Mean Well, Phihong and GlobTek

† 3-wire AC Input

● Blue Part No. = Limited Quantity Available

AC-to-DC Wall Adapters continued on pages 174 - 177



# AC-to-DC Regulated Linear Wall Adapters



## 2-Wire AC Input – AC-to-DC Regulated Linear Wall Adapters

We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 121) on any DC wall adapter listed (100 pc. minimum).

• One-year warranty

Polarity 1 (+) (center negative) Polarity 2 (–) (center positive)



Female



**Quantity SAVE**

Part Number	Brand	Product Number	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Input VAC @ Hz	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)								1	10	50	100
164101CH	ReliaPro	RDU050050	5	500	2.1mm x 5.5mm F 2	120@60	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	\$9.95	\$8.96	\$8.06	\$7.25
220935CH	ReliaPro	DDU050060	5	600	2.1mm x 5.5mm F 1	120@60	2.7 x 2.2 x 1.9	Black	6'	0.8	UL/CUL	12.29	11.06	8.85	6.64
196411CH	ReliaPro	DDU050100	5	1000	2.1mm x 5.5mm F 2	120@60	3.3 x 2.2 x 1.9	Ivory	6'	1.0	UL/CUL	10.95	9.86	7.88	5.91
168605CH	ReliaPro	DBU050100	5	1000	2.5mm x 5.5mm F 2	120@60	3.3 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	11.39	10.49	9.65	8.29
190512CH	ReliaPro	DBU60020-H3570	6	200	2.1mm x 5.5mm F 2	120@60	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	6.95	6.26	5.44	4.06
220898CH	ReliaPro	DCU120020	12	200	2.1mm x 5.5mm F 1	120@60	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CUL	7.85	7.06	5.65	4.24
162996CH	ReliaPro	DDU120050	12	500	2.1mm x 5.5mm F 2	120@60	3.2 x 2.2 x 1.9	Black	6'	0.9	UL/CUL	9.95	8.96	8.06	7.25
170245CH	ReliaPro	RDU120100	12	1000	2.1mm x 5.5mm F 2	120@60	3.2 x 2.3 x 2.0	Black	6'	1.2	UL/CUL	13.95	12.59	11.35	10.19
249244CH	ReliaPro	DFU120150	12	1500	2.1mm x 5.5mm F 2	108-132@50-60	3.3 x 2.7 x 2.2	Black	6'	0.4	UL/CUL	14.95	13.49	12.15	10.95
174861CH	ReliaPro	DFU240050	24	500	2.1mm x 5.5mm F 2	120@60	3.4 x 2.7 x 2.2	Black	6'	1.3	UL/CUL	11.95	10.76	8.60	6.45
174879CH	ReliaPro	RFU240050	24	500	2.5mm x 5.5mm F 2	120@60	3.4 x 2.7 x 2.2	Black	6'	1.3	UL/CUL	11.95	10.79	9.69	8.75

### Other Manufacturers — Limited Great Deals

236435CH	APX	AP2814	5	300	1.3mm x 3.5mm right angle F 2	120@60	2.9 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	\$7.15	\$6.45	\$5.15	\$3.85
2319847CH	—	DV-530R	5	300	2.5mm x 5.5mm F 2	120@60	2.4 x 2.0 x 1.6	Black	6'	0.5	UL/CSA	7.15	6.45	5.79	4.81
289182CH	AESP	AD-5600RDU	5	600	2.1mm x 5.5mm F 2	120@60	3.1 x 2.8 x 1.9	Black	6'	0.9	UL/CUL	10.49	9.45	7.55	5.65
319986CH	—	DV-580R	5	800	2.5mm x 5.5mm F 2	120@60	3.2 x 2.2 x 2.0	Black	6'	1.0	UL/CUL	9.95	8.95	8.05	7.25
171301CH	Imitation	JOD48U08	5	1000	2.1mm x 5.5mm F 2	120@60	3.1 x 2.9 x 2.0	Black	6'	1.0	UL/CUL	10.95	9.89	8.89	7.99
297941CH	—	JOD-480-08	5	1000	2.5mm x 5.5mm F 2	120@60	3.1 x 2.3 x 1.9	Black	6'	0.9	UL	10.99	9.24	8.90	8.00
228726CH	ORB	777-052000S-UF	5	2000	2.1mm x 5.5mm F 2	100@50-60	3.1 x 2.1 x 1.5	Black	5'	0.5	UL/CUL	12.95	11.66	10.49	9.44
308689CH	Fairway Elec.	WN10A-050	5	2000	2.5mm x 5.5mm F 2	100-240@50-60	3.0 x 2.0 x 1.2	Black	6'	0.4	UL/CUL/TUV/CE	11.39	10.45	9.98	9.50
248743CH	MEI	EPA-101M-05A	5	2500	2.1mm x 5.5mm F 2	120@60	3.2 x 2.4 x 1.4	Black	6'	0.5	UL/CUL	13.49	12.14	9.71	7.28
190511CH	Salom Electric	AD0-0885	6	200	2.1mm x 5.5mm F 2	115@60	2.6 x 1.8 x 1.5	Black	6'	0.4	UL/CUL	6.25	5.65	4.89	3.65
283573CH	—	DC600500	6	500	2.1mm x 5.5mm F 2	120@60	3.1 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	7.85	7.06	5.65	4.24
190529CH	NOMA	AD9123	9	250	2.5mm x 5.5mm right angle F 2	120@60	2.5 x 2.0 x 1.6	Black	12'	0.5	UL/CSA	6.49	5.85	4.65	3.50

▲ Brand and Product Number may vary except for ReliaPro, Mean Well, Phihong and Globtek

## 2-Wire AC Input – AC-to-DC Unregulated Wall Adapters



We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 121) on any DC wall adapter listed (100 pc. minimum).

• Input: 120VAC @ 60Hz • One-year warranty

Polarity 1 (+) (center negative) Polarity 2 (–) (center positive)



280250CH



**Quantity SAVE**

Part Number	Brand	Product Number	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)							1	10	50	100
112070CH	ReliaPro	DBU050022	5	225	2.5mm x 5.5mm F 2	1.9 x 2.2 x 2.0	Black	7'	0.3	UL/CSA	\$7.29	\$6.59	\$5.95	\$5.35
155601CH	ReliaPro	DCU050100	5	1000	2.1mm x 5.5mm F 2	2.6 x 2.0 x 1.7	Black	6'	0.7	UL/CSA	5.19	4.67	4.20	3.50
119255CH	ReliaPro	DBU060050	6	500	2.1mm x 5.5mm F 1	2.3 x 1.8 x 1.8	Black	6'	0.6	UL/CUL	4.29	3.86	3.47	3.13
101266CH	ReliaPro	DBU060050	6	500	2.1mm x 5.5mm F 2	2.4 x 1.9 x 1.6	Black	6'	0.4	UL/CSA	4.29	3.86	3.47	3.13
15544CH	ReliaPro	DBU060050	6	500	3.5mm M 2	2.4 x 1.9 x 1.6	Black	6'	0.4	UL/CSA	4.29	3.86	3.47	3.13
147707CH	ReliaPro	SADB060080	6	800	2.1mm x 5.5mm F 2	2.3 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.95	4.49	4.05	3.65
220943CH	ReliaPro	DCU060120	6	1200	2.1mm x 5.5mm F 1	2.5 x 2.0 x 1.7	Black	6'	0.7	UL/CUL	6.49	5.84	4.67	3.50
220951CH	ReliaPro	DCU075100	7.5	1000	2.1mm x 5.5mm F 1	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL	9.19	8.27	7.44	6.20
280250CH	ReliaPro	DDU075110	7.5	1100	2.1mm x 5.5mm F 2	1.8 x 1.2 x 0.8	Black	6'	0.9	UL/CUL	6.29	4.99	4.30	4.19

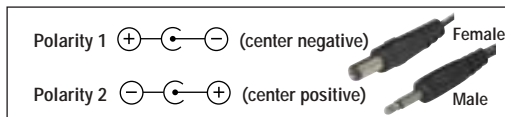
### Other Manufacturers — Limited Great Deals

237227CH	Freeplay	DX351307	4.5	100	1.3mm x 3.5mm F 2	2.4 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	\$4.49	\$1.95	\$1.76	\$1.40	\$1.05
243070CH	Regal	WH045300-10N	4.5	300	2.1mm x 5.5mm F 1	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	\$6.95	2.95	2.66	2.12	1.59
320303CH	Globtek	WRIA1000CCP-N	5	1000	2.1mm x 5.5mm F 2	3.2 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	10.95	9.89	8.89	7.99	
219651CH	—	FE4823-050E120	5	1200	2.5mm x 5.5mm F 2	3.5 x 2.4 x 1.9	Black	6'	1.2	UL/CUL	5.15	4.76	3.81	2.86	
308697CH	Both Hand	MI-10505	5	2000	2.1mm x 5.5mm F 2	2.2 x 1.9 x 1.0	Black	6'	0.3	UL/CUL	10.65	9.82	9.44	8.50	
237251CH	Freeplay	DPX350817	6	100	2.1mm x 5.5mm F 2	2.4 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	3.95	3.59	2.85	2.15	
243117CH	Regal	WH060200-10N	6	200	2.5mm x 5.5mm F 1	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.59	2.85	2.15	
302439CH	—	AD-0630M	6	300	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.99	3.56	3.13	2.80	
201451CH	APX Technologies	AP4733	6	700	2.1mm x 5.5mm F 2	2.6 x 1.9 x 1.4	Black	6'	0.5	UL/CUL	4.95	3.95	2.95	2.19	
227951CH	—	JOD-48U-33	6	2100	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.3	UL/CUL	7.95	7.16	5.72	4.29	
248751CH	Uniq	AD-071A	7.5	1000	2.5mm x 5.5mm F 2	2.3 x 2.3 x 1.9	Black	6'	0.9	UL/CSA	6.49	5.85	4.69	3.50	
249279CH	AESP	FO-AC-4305	7.5	1000	2.1mm x 5.5mm right angle F 2	3.2 x 2.0 x 1.7	Black	6'	0.8	UL/CUL	6.95	6.25	5.65	5.09	
230623CH	—	MKD-48752100	7.5	2100	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.3	UL/CUL	7.95	7.15	5.75	4.29	

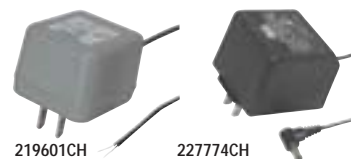
More AC-to-DC Wall Adapters listed on pages 173 & 175 - 177

We specialize in Wall Adapters – Call for additional OEM PRICING.

We will change any power plug (pg 121) on any DC wall adapter listed (100 pc. minimum).



• Input: 120VAC @ 60Hz • One-year warranty



Part Number	Brand	Product Number	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)							1	10	50	100
127511CH	ReliaPro	DDU080100	8	1000	2.1mm x 5.5mm F 2	3.1 x 2.5 x 2.1	Black	6'	1.3	UL	\$7.95	\$7.19	\$6.45	\$5.85
100845CH	ReliaPro	DBU090020	9	200	2.1mm x 5.5mm F 2	2.1 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.59	2.89	2.15
134025CH	ReliaPro	DBU090020	9	200	2.1mm x 5.5mm F 1	2.1 x 1.7 x 1.6	Black	6'	0.4	UL/CSA	4.95	4.46	4.01	3.61
100837CH	ReliaPro	DBU090020	9	200	3.5mm M 2	2.6 x 1.8 x 1.6	Black	6'	0.4	UL/CSA	3.95	3.59	3.25	2.95
133891CH	ReliaPro	DBU090030	9	300	2.1mm x 5.5mm F 2	2.0 x 1.5 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.56	2.84	2.13
189238CH	ReliaPro	DBU090030	9	300	2.5mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	4.25	3.59	2.95	2.35
318676CH	ReliaPro	DBU090030	9	300	2.5mm x 5.5mm F 1	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	3.89	3.48	3.06	2.91
202155CH	ReliaPro	DBU090035	9	350	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.3	UL/CUL	3.29	2.96	2.66	2.40
140636CH	ReliaPro	DCU090040	9	400	2.5mm x 5.5mm F 2	2.6 x 2.0 x 2.0	Black	6'	0.6	UL/CSA	4.19	3.79	3.39	3.05
202171CH	ReliaPro	DCU090045	9	450	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.5	UL/CUL	3.95	3.59	3.25	2.89
163627CH	ReliaPro	DCU090050	9	500	2.1mm x 5.5mm F 1	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	5.49	4.95	4.45	3.95
100853CH	ReliaPro	DCU090050	9	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	4.95	4.46	3.56	2.67
147731CH	ReliaPro	AD-11950	9	500	2.1mm x 5.5mm F 2	2.6 x 2.0 x 1.7	Beige	6'	0.6	UL/CSA	4.29	3.86	3.47	3.13
236937CH	ReliaPro	DCU090050A	9	500	2.5mm x 5.5mm right angle F 2	2.5 x 2.0 x 1.7	Black	6'	0.4	UL/CSA	5.79	5.21	4.17	3.13
15561CH	ReliaPro	DCU090050	9	500	3.5mm M 2	2.5 x 2.0 x 1.6	Black	6'	0.5	UL/CSA	4.85	4.36	3.93	3.54
202180CH	ReliaPro	DCU090060	9	600	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	4.89	4.39	3.95	3.35
100175CH	ReliaPro	DCU090060	9	600	2.5mm x 5.5mm F 2	2.7 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	5.49	4.75	4.25	3.95
202198CH	ReliaPro	DCU090080	9	800	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	6.95	6.26	5.00	3.75
127504CH	ReliaPro	DC910F5-VP	9	1000	2.5mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.49	6.75	6.05	5.05
15587CH	ReliaPro	DDU090100	9	1000	3.5mm M 2	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.95	7.16	5.72	4.29
130526CH	ReliaPro	DDE090120	9	1200	2.1mm x 5.5mm F 1	2.6 x 2.0 x 1.8	Black	6'	1.0	UL/CSA	8.95	8.06	6.44	4.83
143693CH	ReliaPro	DFU0901500A3040	9	1500	2.1mm x 5.5mm F 2	3.3 x 2.5 x 2.3	Black	6'	1.3	UL/CSA	9.95	8.95	6.95	5.19
163993CH	ReliaPro	DBU120020	12	200	2.1mm x 5.5mm right angle F 1	2.4 x 1.7 x 1.6	Black	6'	0.4	UL/CSA	4.79	4.31	3.88	3.49
100095CH	ReliaPro	DBU120020	12	200	2.1mm x 5.5mm F 2	2.1 x 1.8 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.56	3.20	2.88
158043CH	ReliaPro	DBU120020	12	200	2.1mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.49	4.04	3.64	3.27
220433CH	ReliaPro	DBU120020	12	200	2.5mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Lt. Gray	6'	0.4	UL/CSA	4.39	3.95	3.56	3.20
185658CH	ReliaPro	DBU120020	12	200	2.5mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.79	4.31	3.45	2.59
219601CH	ReliaPro	DCU120025	12	250	Stripped & tinned	2.5 x 2.0 x 1.7	Dk. Gray	6'	0.4	UL/CUL	3.95	3.56	2.84	2.13
318692CH	ReliaPro	DBU120030	12	300	1.3mm x 3.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.19	3.39	2.99	2.29
127976CH	ReliaPro	DCU120030	12	300	2.1mm x 5.5mm F 2	2.6 x 1.8 x 1.6	Black	6'	0.7	UL/CSA	4.75	4.29	3.85	3.25
249236CH	ReliaPro	DBU120030	12	300	2.5mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.5	UL/CUL	4.85	3.85	3.39	3.09
190502CH	ReliaPro	ADA-410	12	400	2.1mm x 5.5mm right angle F 2	2.6 x 2.1 x 1.9	Black	6'	0.5	UL/CUL	6.69	6.02	5.42	4.51
114825CH	ReliaPro	DCU120050	12	500	Connector end may vary	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL	4.75	4.35	3.45	2.59
15368CH	ReliaPro	DCU120050	12	500	2.1mm x 5.5mm F 1	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	6.49	5.85	5.29	4.75
102496CH	ReliaPro	DCU120050	12	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	5.25	4.16	3.64	3.46
131300CH	ReliaPro	DCU120050	12	500	2.1mm x 5.5mm right angle F 2	2.6 x 1.9 x 1.7	Beige	6'	0.6	UL/CSA	5.49	4.94	4.45	4.00
102277CH	ReliaPro	DCU120050U	12	500	2.5mm x 5.5mm F 2	2.5 x 2.1 x 1.7	Black	6'	0.6	UL/CSA	5.19	4.67	4.20	3.78
17267CH	ReliaPro	DCU120050	12	500	3.5mm M 2	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	5.19	4.67	3.74	2.80
202201CH	ReliaPro	DCU120060	12	600	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	4.95	4.45	3.55	2.69
202219CH	ReliaPro	DCU120070	12	700	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	5.19	4.67	3.74	2.80
117479CH	ReliaPro	DDU120080	12	800	2.1mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CSA	6.95	6.29	5.65	5.09
129331CH	ReliaPro	DDU120080	12	800	2.5mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CSA	5.49	4.95	4.45	4.05
121232CH	ReliaPro	DDU120080	12	800	3.5mm M 2	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	6.19	5.57	5.01	4.18

## Other Manufacturers — Limited Great Deals

308056CH	—	A40910M	8.7	1000	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	\$7.95	\$7.15	\$6.45	\$5.35
265480CH	Uniden	AD-600B	9	100	2.1mm x 5.5mm right angle F 2	2.1 x 1.4 x 1.4	Black	6'	0.3	UL/CSA	3.49	3.14	2.51	1.88
265498CH	Uniden	AD-600W	9	100	2.1mm x 5.5mm right angle F 2	2.1 x 1.4 x 1.4	White	6'	0.3	UL/CSA	3.49	3.14	2.51	1.88
237243CH	Freeplay	DPX351322	9	200	2.1mm x 5.5mm F 2	2.4 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	3.79	3.45	3.15	2.79
191767CH	—	CTPS3509030020C	9	300	1.3mm x 3.5mm right angle F 2	2.3 x 1.8 x 1.5	Black	6'	0.4	UL/CSA	4.19	3.77	3.02	2.26
189237CH	ACI World	35-9-300C	9	300	2.5mm x 5.5mm F 2	2.2 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	4.25	3.25	2.95	2.35
169519CH	Panasonic	KX-TCA1	9	350	2.1mm x 5.5mm right angle F 1	2.7 x 1.7 x 1.6	Dk. Gray	6'	0.4	UL/CSA	3.49	3.14	2.51	1.88
319177CH	Explore Tech.	41-9-5000	9	500	2.1mm x 5.5mm F 2	2.5 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	3.59	2.95	2.59	2.49
170270CH	Panasonic	POLV1	9	500	2.1mm x 5.5mm right angle F 1	2.7 x 1.9 x 1.8	Gray	6'	0.6	UL/CSA	4.49	4.05	3.45	2.55
164929CH	—	DDU090100	9	900	2.1mm x 5.5mm F 1	2.7 x 2.3 x 1.8	Black	6'	0.9	UL/CUL	7.95	7.15	5.75	4.29
100888CH	Everglow	DDU090100	9	1000	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.16	6.44	5.80
227774CH	GTE	ADP2108GT	9	1000	2.1mm x 5.5mm right angle F 2	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CUL	7.95	7.15	5.75	4.29
285958CH	APX	AP2072P	9	1000	2.5mm x 5.5mm F 2	2.5 x 2.3 x 1.9	Black	6'	0.9	UL/CUL	6.95	6.25	4.99	3.75
237067CH	APS	D9-15-950	9	1500	2.5mm x 5.5mm F 2	3.1 x 2.3 x 1.9	Black	6'	1.3	UL/CUL	9.95	8.96	7.16	5.37

More AC-to-DC Wall Adapters listed on pages 173 - 174 & 176 - 177

# AC-to-DC Unregulated Wall Adapters (Continued)

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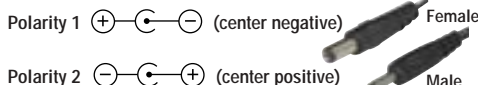
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232258CH



249121CH



• Input: 120VAC @ 60Hz • One-year warranty



220901CH

217541CH

Part Number	Brand▲	Product Number▲	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)							1	10	50	100
100870CH	ReliaPro	DDU120100	12	1000	2.1mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	\$8.19	\$7.37	\$6.63	\$5.97
105478CH	ReliaPro	DDU120100	12	1000	2.5mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.49	6.74	6.07	5.46
15392CH	ReliaPro	DDU120100	12	1000	3.5mm M 2	3.3 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.16	6.44	5.80
213559CH	ReliaPro	GPC-081	12	1000	Auto lighter power outlet	4.3 x 2.2 x 1.9	Black	—	1.1	UL/CUL	13.95	12.56	10.04	7.53
196779CH	ReliaPro	DDU120120	12	1200	2.5mm x 5.5mm F 2	3.0 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.79	7.91	7.10	6.29
203036CH	ReliaPro	DDU120150	12	1500	2.1mm x 5.5mm F 1	3.3 x 2.2 x 1.9	Black	6'	1.5	UL/CUL	12.95	11.69	9.35	6.99
313226CH	ReliaPro	DFU120150	12	1500	Stripped & tinned (w/ on-off switch)	3.4 x 2.6 x 2.2	Black	8'	1.5	UL	10.39	9.45	8.49	7.55
136881CH	ReliaPro	DFU120150	12	1500	2.1mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	12.95	11.69	10.55	9.45
101291CH	ReliaPro	D571201500U	12	1500	2.5mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	10.39	9.35	8.42	7.57
308099CH	ReliaPro	DDU135100	13.5	1000	2.1mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.15	7.36	6.51	5.65
212812CH	ReliaPro	DBU140020	14	200	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	3.05	2.79	2.55	2.29
212821CH	ReliaPro	DBU140030	14	300	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	4.49	4.04	3.64	3.02
123932CH	ReliaPro	DDU140070	14	700	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	8.49	7.65	6.89	6.19
202243CH	ReliaPro	DDU140070	14	700	2.5mm x 5.5mm F 2	3.9 x 2.9 x 2.4	Black	6'	0.8	UL/CUL	7.25	6.52	5.22	3.92
202260CH	ReliaPro	DDU140100	14	1000	2.1mm x 5.5mm F 2	3.9 x 2.9 x 2.4	Black	6'	0.9	UL/CUL	7.95	7.16	5.72	4.29
190001CH	ReliaPro	DCU150050	15	500	2.1mm x 5.5mm F 2	2.6 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.49	5.84	4.67	3.50
189982CH	ReliaPro	DCU150050	15	500	2.5mm x 5.5mm F 2	2.3 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.95	6.26	5.00	3.75
155803CH	ReliaPro	DDU150060	15	600	2.1mm x 5.5mm F 1	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CSA	8.95	8.06	6.44	4.83
232258CH	ReliaPro	DDU150080	15	800	2.1mm x 5.5mm F 1	2.9 x 2.3 x 1.9	Black	6'	1.0	UL	8.49	7.64	6.11	4.58
203502CH	ReliaPro	DDU150090	15	900	2.5mm x 5.5mm F 2	2.6 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	6.95	6.25	5.49	4.75
151992CH	ReliaPro	DDU150100	15	1000	2.1mm x 5.5mm F 1	3.1 x 2.0 x 1.9	Beige	6'	1.5	UL/CSA	8.49	7.64	6.11	4.58
191652CH	ReliaPro	DDU150100	15	1000	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	9.59	8.65	7.79	6.99
162317CH	ReliaPro	DDU165050	16	500	2.1mm x 5.5mm F 2	2.2 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	7.95	6.95	6.25	5.59
181729CH	ReliaPro	DCU180025	18	250	2.1mm x 5.5mm F 2	2.6 x 2.0 x 1.6	Black	6'	0.6	UL	6.95	6.26	5.00	3.75
163272CH	ReliaPro	DDU180050-2	18	500	2.1mm x 5.5mm F 2	2.6 x 2.3 x 1.9	Black	6'	0.8	UL/CUL	10.95	9.86	8.38	6.70
206958CH	ReliaPro	DDU180100	18	1000	2.5mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.4	UL/CUL	9.95	8.99	7.19	5.39
102285CH	ReliaPro	DDU240040	24	400	2.1mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CUL	7.95	7.19	6.45	5.85
163635CH	ReliaPro	DDU240050	24	500	2.1mm x 5.5mm F 1	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.95	8.06	6.44	4.83
191556CH	ReliaPro	DDU240050	24	500	2.5mm x 5.5mm F 2	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.95	8.09	7.25	6.05
139088CH	ReliaPro	DDU240050	24	500	3.5mm M 2	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	7.95	7.16	5.72	4.29
168495CH	ReliaPro	DFU240080	24	800	2.1mm x 5.5mm F 2	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL/TUV	10.95	9.86	7.88	5.91
220960CH	ReliaPro	DFU240100	24	1000	2.1mm x 5.5mm F 1	3.4 x 2.7 x 2.2	Black	6'	1.6	UL/CUL	13.89	12.95	11.39	10.89
249130CH	ReliaPro	AFU240120/G8530	24	1200	2.1mm x 5.5mm F 1	3.4 x 2.7 x 2.2	Black	6'	1.7	UL/CUL	15.95	14.85	13.09	12.49
249121CH	ReliaPro	DFU240120/G8520	24	1200	2.1mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.7	UL/CUL	15.95	14.85	13.09	12.49
249113CH	ReliaPro	DFU240120/G8510	24	1200	2.5mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.7	UL/CUL	15.95	14.85	13.09	12.49
199523CH	ReliaPro	DDU300050	30	500	2.5mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	9.95	8.96	7.16	5.37
215095CH	ReliaPro	MW48-4800250	48	250	2.5mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	7.95	7.15	6.49	5.79
230631CH	ReliaPro	MW48-4800250-2.1	48	250	2.1mm x 5.5mm F 2	3.3 x 2.7 x 2.2	Black	6'	1.1	UL/CUL	7.95	7.16	5.72	4.29
215108CH	ReliaPro	MW48-4800500	48	500	2.5mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	10.95	9.85	8.85	7.95
230640CH	ReliaPro	MW48-4800500-2.1	48	500	2.1mm x 5.5mm F 2	3.3 x 2.7 x 2.2	Black	6'	1.1	UL/CUL	11.95	10.76	8.60	6.45

## Other Manufacturers — Limited Great Deals

211238CH	Quotrek	35D-12-250	12	250	2.5mm right angle M 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	\$3.95	\$3.55	\$2.89	\$2.15
201099CH	—	SPN4230A	12	300	1.3mm x 3.5mm right angle F 2	2.3 x 2.0 x 1.7	Black	6'	0.5	UL/CSA	4.99	4.49	4.05	3.35
200125CH	Noostuff Inc.	DV1250	12	500	2.5mm x 5.5mm F 1	2.4 x 2.0 x 1.6	Black	6'	1.0	UL/CSA	4.25	3.82	3.06	2.30
305103CH	—	AD1250-5LE	12	500	2.1mm x 5.5mm F 2	2.6 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	4.89	3.94	3.45	3.28
320266CH	CUI	DV-1280	12	800	2.1mm x 5.5mm F 2	2.4 x 2.4 x 2.0	Black	6'	0.8	UL/CSA	6.09	5.49	4.39	4.39
237358CH	QSE	P155-D150567	12	800	2.5mm x 5.5mm F 2	3.0 x 2.3 x 1.9	Black	6'	0.9	UL	5.19	4.69	3.75	2.79
211051CH	Calrad ↑	DV-1280 Dual	12	800	2.5mm x 5.5mm rt angle F 2 w/ input switch	2.6 x 2.4 x 1.9	Black	6'	0.9	No UL	\$5.39 4.85	4.36	3.49	2.62
240101CH	—	FW3288	12	1000	2.1mm x 5.5mm F 2	3.8 x 2.4 x 2.2	Black	6'	1.0	UL/CSA	7.49	6.74	5.39	4.04
199566CH	Superworld	WK1201A01DN	12	1000	2.5mm x 5.5mm F 2 (w/ RF filter)	3.2 x 2.2 x 2.0	Black	6'	1.2	UL/CSA	6.95	6.26	5.63	5.07
189579CH	Fellowes	BCU12100	12	1000	2.5mm x 5.5mm right angle F 2	3.2 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	7.95	7.19	5.75	4.35
189211CH	ACI World	57-12-1500D	12	1500	8-pin mini DIN M	3.4 x 2.6 x 2.2	Black	3/4"	1.7	UL/CUL	4.95	4.49	3.59	2.69
192786CH	—	MK135100	13.5	1000	2.1mm x 5.5mm F 1	2.9 x 2.3 x 2.0	Black	6'	1.0	UL/CSA	3.79	3.43	3.12	2.84
129314CH	—	DV-1250	14	360	2.5mm x 5.5mm right angle F 2	2.3 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	5.19	4.67	3.74	2.80
220901CH	Drake	3690454	16	250	Stripped & tinned	2.2 x 2.1 x 1.6	Black	6'	0.8	UL/CSA	\$3.75 2.95	2.66	2.12	1.59
217541CH	NiteRider	FE4116168C030	16.8	300	2.5mm x 5.5mm F 2 w/ LED indicator	3.1 x 2.1 x 1.6	Black	6'	0.6	UL/CUL	\$4.95 4.45	4.00	3.20	2.40
217568CH	NiteRider	FE4126180P040	18	400	2.5mm x 5.5mm F 2 w/ LED indicator	3.5 x 2.1 x 1.6	Black	6'	0.8	UL/CUL	5.99	5.39	4.31	3.23
206957CH	GlobTek	WD1H1000LCX	18	1000	2.5mm x 5.5mm F 2	3.4 x 2.6 x 2.1	Black	6'	1.4	No UL	9.95	8.96	8.06	7.25
196322CH	3Com	P4824060A020G	24	600	2.1mm x 5.5mm F 2	3.3 x 2.3 x 1.9	Black	6'	1.1	UL/CSA	8.95	8.05	6.85	5.15

↑ 120 to 220VAC

▲ Brand and Product Number may vary except for ReliaPro, Mean Well, Pihong and Globtek

More AC-to-DC Wall Adapters listed on pages 173 - 175 & 177



## Other Manufacturers — Limited Great Deals (Continued)

Part Number	Brand▲	Product Number▲	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)							1	10	50	100
15309CH	—	900-051	3, 4.5, 6, 7.5, 9, 12	500	1.3 x 3.5, 2.1 x 5.0, 2.5 x 5.5 Female 2.5, 3.5 Male, 9V battery snap (LED ind.)	3.0 x 2.2 x 2.1	Black	6'	0.7	UL/CSA	\$9.49	\$8.54	\$7.69	\$6.92
190641CH	—	DCM08	3, 4.5, 6, 7.5, 9, 12	800	1.5 x 5.5, 2.1 x 5.0, 2.1 x 5.5, 2.5 x 5.5 Female 2.5, 3.5 Male, polarity sw. (LED ind.)	3.9 x 2.7 x 2.3	Black	6'	0.9	UL/CSA	7.95	7.19	5.75	4.29
123158CH	—	900-100 †	1.5, 3, 4.5, 6, 7.5, 9, 12	1000	1.3 x 3.5, 2.1 x 5.0, 2.5 x 5.5 Female 2.5, 3.5 Male, 9V battery snap (LED ind.)	3.7 x 2.2 x 2.5	Black	6'	0.9	—	10.95	9.86	8.87	7.98

▲ Brand and product number may vary except for ReliaPro, Mean Well, Pihong and Globtek

## 2-Wire AC Input – AC-to-AC Wall Adapters



We specialize in Wall Adapters – Call for additional OEM PRICING.

We will change any power plug (pg 121) on any DC wall adapter listed (100 pc. minimum).

• Input: 120VAC @ 60Hz • One-year warranty

Part Number	Brand▲	Product Number▲	Output Rating		Output Connector ID x OD Plug Type F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VAC)	Current (mA)							1	10	50	100
249017CH	ReliaPro	ACU070150	7	1500	2.5mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CSA	\$5.19	\$4.69	\$4.29	\$3.59
219619CH	ReliaPro	ABU09005	9	50	2.1mm x 5.5mm F	2.2 x 1.8 x 1.5	Black	6'	0.3	UL/CSA	1.65	1.51	1.38	1.25
100061CH	ReliaPro	ACU090050	9	500	2.1mm x 5.5mm F	2.7 x 1.9 x 1.7	Black	6'	0.6	UL/CUL	4.59	4.13	3.30	2.48
236814CH	ReliaPro	ACU090080	9	800	3.5mm M	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CUL	4.95	4.46	3.56	2.67
102234CH	ReliaPro	ACU090100	9	1000	2.1mm x 5.5mm F	3.2 x 2.2 x 1.9	Black	6'	0.6	UL/CSA	5.49	4.94	4.45	4.00
157041CH	ReliaPro	ACU090100	9	1000	2.5mm x 5.5mm F	2.1 x 2.1 x 1.6	Black	6'	0.6	UL/CSA	6.95	6.29	5.65	5.09
112336CH	ReliaPro	ACU090150	9	1500	2.5mm x 5.5mm F	2.5 x 2.2 x 2.0	Black	6'	0.9	UL	9.95	8.96	8.06	7.25
101258CH	ReliaPro	ACU120050	12	500	2.1mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	4.59	4.13	3.30	2.48
10081CH	ReliaPro	ACU120100	12	1000	2.1mm x 5.5mm F	2.6 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	5.19	4.67	4.20	3.78
100167CH	ReliaPro	A411201000U	12	1000	2.5mm x 5.5mm F	3.2 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	5.19	4.67	4.20	3.78
10428CH	ReliaPro	ACU120100	12	1000	3.5mm M	2.6 x 2.4 x 2.0	Black	6'	0.6	UL/CUL	5.19	4.67	4.20	3.78
167151CH	ReliaPro	ADU120150	12	1500	2.1mm x 5.5mm F	3.4 x 2.7 x 2.2	Black	6'	1.5	UL/CUL	4.95	4.49	3.99	3.35
307838CH	ReliaPro	ADU120160	12	1600	2.5mm x 5.5mm F	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	12.69	10.17	8.90	8.45
153761CH	ReliaPro	ADU120160	12	1600	3.5mm M	2.5 x 2.2 x 1.9	Black	6'	0.9	UL	10.95	9.86	8.87	7.98
171408CH	ReliaPro	ACU140050	14	500	2.1mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.49	4.04	3.64	3.28
318684CH	ReliaPro	ACU140085	14	850	2.5mm x 5.5mm right angle F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL	10.85	8.18	7.30	6.23
100108CH	ReliaPro	ADU160100	16	1000	2.1mm x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA	7.95	7.19	6.45	5.85
163053CH	ReliaPro	ADU160110	16	1100	2.5mm x 5.5mm F	3.2 x 2.3 x 1.8	Black	6'	1.1	UL/CSA	8.95	7.99	6.44	4.83
121216CH	ReliaPro	ADU180100	18	1000	2.1mm x 5.5mm F	3.1 x 2.7 x 1.9	Black	6'	1.1	UL/CUL	8.95	8.05	7.25	6.15
87581CH	ReliaPro	ADU240050	24	500	2.1mm x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA	5.19	4.67	4.20	3.78
140599CH	ReliaPro	ADU240100	24	1000	2.1mm x 5.5mm F	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	8.95	8.09	6.49	4.89
10102CH	ReliaPro	ADU240100	24	1000	3.5mm M	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	7.95	7.19	6.45	5.85
176356CH	ReliaPro	AFU240125	24	1250	2.1mm x 5.5mm F	3.4 x 2.7 x 2.2	Black	5'8"	1.6	No UL	10.49	9.44	8.50	7.65

## Other Manufacturers — Limited Great Deals

101127CH	Siemens	DFX10096B	7	1500	2.5mm x 5.5mm F	1.9 x 2.2 x 2.0	Black	7'6"	0.8	UL/CSA	\$4.95	\$4.46	\$3.56	\$2.67
219660CH	Sincore	SLA40810	8	1000	2.1mm x 5.5mm F	2.2 x 2.1 x 1.6	Black	6'	0.7	UL/CSA	<del>\$3.09</del> 1.95	1.76	1.40	1.05
210729CH	ITE Power Supply	MKA35090300	9	300	2.1mm x 5.5mm F	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	3.95	3.55	2.84	2.13
184751CH	PhoneMate	M/N40	9	450	2.1mm x 5.5mm right angle F	2.8 x 2.0 x 1.7	Black	6'	0.8	UL/CSA	4.59	4.13	3.30	2.48
226131CH	US Robotics	AA0950	9	500	2.5mm x 5.5mm F	2.5 x 2.1 x 1.7	Black	6'	0.5	UL/CSA	4.49	4.04	3.23	2.42
249295CH	Pacrim	41A-9-700	9	700	2.5mm x 5.5mm F	2.3 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	4.49	3.99	3.65	3.29
233293CH	Horizon	ACU090080	9	800	2.1mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL	4.69	4.25	3.39	2.55
320258CH	US Robotics	T48091500A010G	9	1500	2.5mm x 5.5mm F	2.5 x 2.2 x 2.0	Black	6'	0.9	UL/CSA	8.95	8.05	7.25	6.55
217550CH	Frino	FW6798	9	1900	Stripped and tinned	2.8 x 2.5 x 2.0	Black	6'8"	1.1	UL/CSA	8.49	7.64	6.11	4.58
210745CH	Leader Electronics	A4110050T	10	500	2.1mm x 5.5mm F	3.0 x 2.1 x 1.7	Black	6'	0.6	UL/CSA	2.65	2.39	2.19	1.99
265455CH	—	FW6199	12	200	2.1mm x 5.5mm F	2.1 x 1.9 x 1.9	Black	6'7"	0.5	UL	1.95	1.76	1.40	1.05
211271CH	Orig. Elec. Mfg.	AA-1250	12	500	2.5mm x 5.5mm F	2.3 x 2.1 x 1.6	Black	6'	0.6	UL/CSA	4.59	4.13	3.30	2.48
285069CH	Shogyo	DV-1283	12	830	2.5mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.95	4.55	4.13	3.70
309884CH	—	AA-121A	12	1000	2.1mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	—	UL/CUL	4.89	4.39	3.96	3.55
206404CH	MG Electronics	MGT1220	12	1670	Screw terminals	3.2 x 2.2 x 1.9	White	—	0.9	UL/CSA	6.95	6.29	5.65	5.09
210737CH	ITE Power Supply	PPI-1212ZUL	13	1200	2.1mm x 5.5mm F	3.3 x 2.4 x 2.0	Black	6'	0.9	UL/CUL	4.95	4.49	3.59	2.69
171854CH	Racal	DV1485AC	14	850	2.5mm x 5.5mm right angle F	3.0 x 2.0 x 1.7	Black	6'	0.7	UL/CUL	6.95	6.25	5.65	4.69
201101CH	Motorola	SPN4340A	15	200	1.3mm x 3.5mm F	2.2 x 1.8 x 1.5	Black	6'	0.5	UL/CSA	1.69	1.52	1.37	1.23
227791CH	Ault	T41180500A0206	18	500	2.1mm x 5.5mm F	2.6 x 1.9 x 1.7	Black	6'	1.1	No UL	<del>\$5.19</del> 3.95	3.56	2.84	2.13
185439CH	Ault	T5182200-A020G	18	1850	2.1mm x 5.5mm right angle F	3.2 x 2.7 x 2.2	Black	6'	1.1	No UL	7.49	6.74	5.39	4.04
308718CH	Comtrend	ACU-190051	19	510	2.5mm x 5.5mm right angle F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL	5.39	4.85	4.39	3.65
206421CH	MG Electronics	MGT2410	24	420	Screw terminals	2.5 x 2.0 x 1.7	White	—	0.6	UL/CSA	6.49	5.84	5.26	4.73
240119CH	—	FW6798	24	500	2.5mm x 5.5mm F	2.8 x 2.5 x 2.2	Black	6'8"	0.8	UL/CSA	4.95	4.46	3.56	2.67
206439CH	MG Electronics	MGT2420	24	830	Screw terminals	3.2 x 2.2 x 1.9	White	—	0.9	UL/CSA	7.19	6.49	5.85	5.25
305091CH	Ault	3264024000A1	24	1600	3.5mm M	2.9 x 2.7 x 2.2	Black	6'	1.5	UL	9.95	8.54	8.06	7.25

▲ Brand and product number may vary except for ReliaPro, Mean Well, Pihong and Globtek

⚙ Blue Part No. = Limited Quantity Available

# AC-to-AC Table-Top Adapter & Enclosures



## AC-to-AC Table-Top Step-Down Adapter

- Input voltage: 120VAC @ 60Hz
- Output current: 4.0A
- Output plug: 2.1mm (ID) x 5.5mm (OD) female
- Attached AC cord
- Agency approvals: CSA
- Size: 3.7"L x 2.9"W x 2.5"H

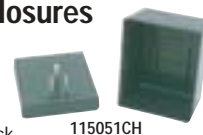
- Output volts: 16VAC
- Output watts: 64W
- Cord (AC/AC): 6' / 6'
- Color: black
- Weight: 2.8 lbs.

**A Jameco EXCLUSIVE**

Part No.	Manufacturer	Product Number	1	10	50
176604CH	Jameco	TA661640	\$12.95	\$11.65	\$10.49

## Wall Adapter Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Size: 3.4"H x 2.7"W x 2.3"D
- Material: noryl
- Color: black



Part No.	Style	1	10	100
115051CH	Non-vented	\$2.25	\$1.95	\$1.69
115043CH	Vented	2.25	1.95	1.69

## Power Transformers and Variable Transformers

### 6VAC/9VAC Dual Output Power Transformer

12VAC

- Input voltage: 120VAC
  - Output voltage: 6VAC @ 500mA center tap (blue wires); 9VAC @ 1A center tap (yellow wires)
  - Size: 2.1"L x 3.2"W x 2.0"H
  - Weight: 1.3 lbs.
- | Part No. | Mfr. Cross Ref. No. | 1      | 10     | 100    |
|----------|---------------------|--------|--------|--------|
| 183089CH | YS57H-099FAA        | \$3.95 | \$3.56 | \$2.84 |



### 320VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz (using pin 1-2); 110VAC @ 50Hz (using pin 1-4)
  - Matching input/output terminals: P/N 103667CH and 109111CH (disconnect .25" solderless terminals), pg 120
  - Maximum current: 2.5A
  - Size: 2.8"Dia. x 2.1"H
  - Weight: 2.5 lbs.
  - Panel mount
  - Shaft length: 0.5"
  - One-year warranty
- Includes: 3 disconnect .25" solderless terminals
- | Part No. | Description    | 1       | 10      | 50      |
|----------|----------------|---------|---------|---------|
| 149323CH | 320VA variable | \$53.95 | \$48.59 | \$43.75 |



### 500VA & 2000VA Variable Transformers

- Input voltage: 110VAC @ 60 Hz
- Power: 500 or 2000VA
- Output voltage: 0 to 130VAC
- Output analog voltmeter
- Input connector: 3-prong plug w/ 5' cord
- Output connector: 3-prong outlet type
- Lighted on/off power switch
- 169640CH: 5A @ 250V fuse
- Size: 8.3"L x 6.5"W x 7.0"H
- Weight: 15.6 lbs.
- 169658CH: 20A @ 250V fuse
- Size: 9.8"L x 8.0"W x 7.0"H
- Weight: 26.5 lbs.



Part No.	Description	1	10	50
169640CH	500VA trans.	\$89.95	\$80.96	\$72.86
169658CH	2000VA trans.	130.95	117.85	106.07

### 120VAC to 120VAC Isolation Transformer

300VA

- Input voltage: 120VAC @ 60Hz
  - Input connector: 5.5' cord with 2-prong plug
  - Output voltage: 120VAC @ 2.5A (isolated)
  - Size: 4.2"H x 3.2"W x 4.6"D
  - Weight: 7.0 lbs.
- | Part No. | Mfr. Cross Ref. No. | 1       | 10      | 100     |
|----------|---------------------|---------|---------|---------|
| 181315CH | ITR300              | \$44.95 | \$38.21 | \$28.66 |



### 550VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz
  - Output voltage: 0-140VAC
  - Rated current: 5A
  - Panel mount
  - Input/output terminals: binding post with 0.188" diameter post
  - Size: 4.3"Dia. x 4.0"H
  - Weight: 6.8 lbs.
  - One-year warranty
- Lower \$\$\$**
- | Part No. | Description    | 1       | 10      | 50      |
|----------|----------------|---------|---------|---------|
| 152936CH | 550VA variable | \$62.95 | \$53.51 | \$47.88 |



### EMI Suppression Cores with Case

Reduce Electro Magnetic Interference (EMI) with a snap of these suppression cores around a power cord or data cord. Easy to install and an affordable way to reduce EMI without redesigning your product.



Part No.	Size (OutDia. x InDia. x L)	1	10	100
218173CH	.64" x .20" x 1.15"	\$ .99	\$ .89	\$ .79
217841CH	.78" x .34" x 1.40"	1.45	1.23	.92
318705CH	.82" x .45" x 1.42"	1.39	1.29	1.25

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Our enhanced website offers more products. Find it quickly and order it easily!

### 500-2000VA Variable Transformers

- Input: 110VAC or 220VAC
- Power: 500, 1000 or 2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/ European output plugs
- Lighted on/off power switch



Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275CH	3A/250V (P/N 69438CH)	5.3 x 7.3 x 7.0	10.4
129007CH	5A/250V (P/N 10401CH)	9.4 x 6.5 x 7.7	14.8
152581CH	10A/250V (P/N 69462CH)	9.0 x 7.0 x 7.7	19.8

Part No.	Description	1	10	50
121275CH	500VA trans.	\$79.95	\$69.95	\$62.95
129007CH	1000VA trans.	164.95	140.21	105.16
152581CH	2000VA trans.	174.95	148.71	111.75

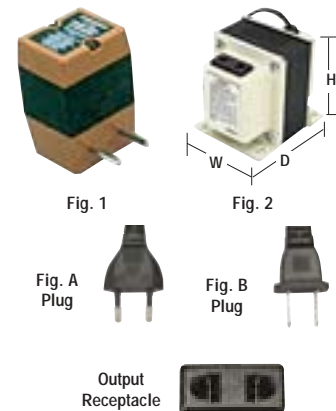
## International Step-Up and Step-Down Transformers

- Wide selection to meet your power requirements

**Quantity SAVE**

Part Number	Mfr. Cross Ref. No. *	Fig.	Type	Primary Voltage	Secondary Voltage	Power (VA)	H"	W"	D"	Weight (lbs.)	1	10	100
99573CH	AC110V50	1/A	Auto	220VAC	110VAC	50	2.50	1.63	1.33	0.7	\$9.95	\$8.99	\$8.09
85016CH	AC110V300	2/A	Auto	220VAC	110VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49
111851CH	AC110V500	2/A	Auto	220VAC	110VAC	500	3.99	3.60	4.84	8.5	34.95	31.49	28.95
221250CH	GSD-1000	2/A	Auto	220VAC	110VAC	1000	4.63	3.81	6.06	17.0	59.95	50.96	38.22
142906CH	AC110V1500	2/A	Auto	220VAC	110VAC	1500	5.25	4.50	5.75	15.2	79.95	71.95	63.69
99477CH	AC220V50	1/B	Auto	110VAC	220VAC	50	2.50	1.63	1.33	0.7	8.95	8.09	7.25
221233CH	P8638	2/B	Auto	110VAC	220VAC	125	3.13	2.50	3.00	3.0	15.25	13.84	12.58
85008CH	AC220V300	2/B	Auto	110VAC	220VAC	300	3.50	3.05	3.95	4.8	27.95	23.76	17.82
221217CH	P8689	2/B	Auto	110VAC	220VAC	1000	4.63	3.75	6.13	17.0	61.95	57.55	43.85
221313CH	G1SD-500	2/A	Isolation	220VAC	110VAC	500	4.69	3.75	6.00	16.0	78.95	67.11	50.33
222092CH	G1SD-1000	2/A	Isolation	220VAC	110VAC	1000	5.38	4.38	8.13	31.0	149.95	127.46	95.59
221330CH	G1S-500	2/B	Isolation	110VAC	110VAC	500	4.69	3.75	6.00	16.0	78.95	67.11	50.33

\* Manufacturer may vary



## Split-Bobbin Power Transformers

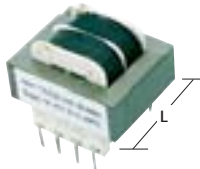
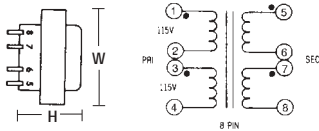
**SALE**

**Quantity SAVE**

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

• Primary: 115/230VAC, 50-60Hz

• PC terminal pin spacing for accurate placement



102517CH

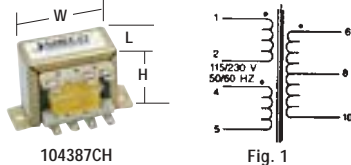
Part Number	Mfr. Cross Ref. No.	Triad Cross	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	Dimensions			Wt. (lbs.)	Pricing		
								L"	W"	H"		1	10	100
221292CH	DSW-312	FS12200	115/230	2.5	6.3V @ .20A	6.3V @ .40A	12.6VCT @ .20A	1.38	1.13	1.19	0.3	\$4.95	\$4.21	\$3.16
102533CH	XFR1205SB	FS12500	115/230	6.3	6.3V @ .50A	6.3V @ 1.0A	12.6VCT @ .50A	1.31	1.62	1.30	0.4	7.29	6.49	5.75
102517CH	XFR1602SB	FS16150	115/230	2.4	8V @ .15A	8V @ .30A	16VCT @ .15A	1.17	1.38	1.20	0.3	5.65	4.80	3.60
221284CH	DSW-316	FS16150	115/230	2.5	8V @ .15A	8V @ .30A	16VCT @ .15A	1.38	1.13	1.19	0.3	3.09	2.80	2.55
210921CH	14A-10-ZOB21	—	115/230	10.0	10V @ .05A	10V @ 1.0A	20VCT @ 0.5A	1.88	1.56	1.38	0.5	3.69	3.36	3.05
210948CH	DPC20-60B13	—	115/230	1.2	10V @ .06A	10V @ .12A	20VCT @ .06A	1.63	1.25	1.38	0.2	2.05	1.85	1.69
210956CH	DST2-24-845	—	115/230	1.1	12V @ .045A	12V @ .09A	24VCT @ .045A	1.13	1.13	0.94	0.2	6.49	5.85	5.25
176090CH	SPT41240-120	FS24250	115/230	6.0	12V @ .25A	12V @ .50A	24VCT @ .25A	1.33	1.63	1.59	0.5	6.95	5.91	4.43
102592CH	XFR2405SB	FS24500	115/230	12.0	12V @ .50A	12V @ 1.0A	24VCT @ .50A	1.58	1.90	1.46	0.7	8.79	7.95	5.49
249412CH	DST-5-16	—	115/230	12.8	8V @ .80A	8V @ 1.6A	16VCT @ .80A	1.57	1.88	1.42	0.6	8.95	8.09	7.25
210930CH	PC34-35-B21	—	115	1.2	17V @ .035A	17V @ .07A	34VCT @ .035A	1.38	1.13	1.19	0.2	2.05	1.85	1.69
148559CH	XFR3603SB	FS36350	115/230	17.0	18V @ .35A	18V @ .70A	36VCT @ .35A	1.59	1.91	1.72	0.7	7.49	6.69	6.05
210964CH	LP40-300-B14	—	115/230	12.0	20V @ .30A	20V @ 0.6A	40VCT @ 0.3A	2.50	2.00	1.07	0.7	5.85	5.30	4.82
209015CH	ST-6-48	—	115	19.2	24V @ .40A	24V @ .80A	48VCT @ .40A	1.88	2.25	1.40	0.8	2.59	2.32	2.11

Blue Part No. = Limited Quantity Available

## Quick-Connect Power Transformers

**Quantity SAVE**

- Quick-connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Terminals: quick connect, solder
- Input voltage: 115/230VAC, 50-60Hz



104387CH

Fig. 1

Part Number	Mfr. Cross Ref. No.	Triad Cross	Fig.	Input Voltage	Output Voltage	VA Cap	Size of Connect	Dimensions			Wt. (lbs.)	Pricing		
								L"	W"	H"		1	10	100
104387CH	XFR1225Q	FD612	1	115/230VAC	12.6VCT @ 2.5A	31.5	0.187"	1.75	2.33	2.00	1.3	\$9.29	\$7.90	\$5.92
104408CH	XFR1635Q	FD716	1	115/230VAC	16VCT @ 3.5A	56.0	0.187"	2.00	2.70	2.30	1.8	12.95	11.01	8.26
101864CH	XFR2424Q	FD724	1	115/230VAC	24VCT @ 2.4A	57.6	0.187"	2.40	2.70	2.25	1.7	11.95	10.16	7.62
104416CH	XFR3615Q	FD736	1	115/230VAC	36VCT @ 1.5A	54.0	0.187"	1.90	2.70	2.30	1.8	9.95	8.99	8.09

## 115VAC and 115/230VAC Power Transformers

**Quantity SAVE**

Power transformers have both single and dual-voltage input and center-tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier and filter circuits.

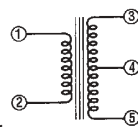
• Primary: 115VAC or 115/230VAC, 50-60Hz



29225CH

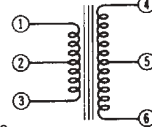
115VAC  
50-60Hz

Fig. 1



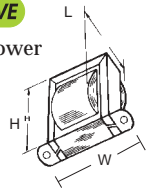
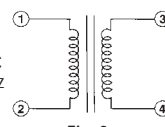
115/230VAC  
50-60Hz

Fig. 2



115VAC  
50-60Hz

Fig. 3



Part Number	Mfr. Cross Ref. No.	Triad Cross	Primary			VA Cap	Secondary			Lead Type	Fig.	Dimensions			Wt. (lbs.)	Pricing				
			Color Code				Voltage		Color Code			L"	W"	H"		1	10	100		
102162CH	XFR6102	F314X	Black	Yellow*	Red	7.6	6.3VCT @ 1.2A	White	Black*	White	Wire	2	1.56	1.96	1.67	0.8	\$8.49	\$7.22	\$5.41	
105523CH	XFR0910	—	Black	White*	Red	9.0	9VCT @ 1A	Blue	Black*	Blue	Wire	2	1.79	1.96	1.66	0.7	6.95	6.25	5.63	
221401CH	P-8391	F216X	Black	—	Black	4.2	12VAC @ 0.35A	White	—	White	Wire	3	1.38	2.38	1.38	0.4	\$4.45	2.59	2.34	2.13
221399CH	P-8657	F218X	Black	—	Black	24.0	12VAC @ 2A	White	—	White	Wire	3	2.13	3.25	2.00	1.3	9.15	8.49	7.15	
221356CH	P-8658	F219X	Black	—	Black	48.0	12VAC @ 4A	White	—	White	Wire	3	2.25	4.00	2.63	2.3	12.95	11.95	9.95	
29225CH	XFR122	F44X	Yellow	—	Yellow	25.2	12.6VCT @ 2A	Blue	Red*	Black	Wire	1	2.12	2.33	1.96	1.5	9.95	8.99	7.99	
102154CH	XFR1220	F344X	Black	Yellow*	Red	25.2	12.6VCT @ 2A	White	Black*	White	Wire	2	2.35	2.32	1.97	1.5	10.95	9.39	6.99	
149770CH	XFR1240	F3181U	Black	Red*	Yellow	50.4	12.6VCT @ 4A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.2	12.95	11.69	10.49	
102120CH	XFR124	F181U	Black	—	Black	50.4	12.6VCT @ 4A	White	Black*	White	Wire	1	2.53	3.08	2.61	2.7	12.95	11.69	10.49	
105531CH	XFR1810	—	Blue	Red*	Black	18.0	18VCT @ 1A	Yellow	Black*	Yellow	Wire	2	2.32	2.05	1.90	1.2	6.95	6.26	5.31	
149956CH	XFR1820	—	Black	Red*	Yellow	36.0	18VCT @ 2A	White	Black*	White	Wire	2	2.26	2.66	2.28	1.8	8.95	7.95	6.95	
221381CH	P8396	—	Black	—	Black	9.6	24VCT @ 0.4A	White	Black*	White	Wire	1	1.63	2.8	1.5	0.6	6.95	5.91	4.43	
102111CH	XFR2410	F346X	Black	Yellow*	Red	24.0	24VCT @ 1A	White	Black*	White	Wire	2	2.22	2.33	1.97	1.5	8.95	7.61	5.71	
221372CH	P-8662	F192X	Black	—	Black	48.0	24VCT @ 2A	White	Black*	White	Wire	1	2.38	4.00	2.62	2.3	11.95	10.16	7.62	
112512CH	XFR242N	F229X	Black	—	Black	48.0	24VAC @ 2A	White	—	White	Wire	3	2.21	3.58	2.25	1.8	9.79	8.85	7.95	
221364CH	P-8663†	F193U	—	—	—	96.0	24VCT @ 4A	—	—	—	Lug	1	2.81	3.13	3.81	4.0	18.95	17.85	14.95	
221410CH	P-8666†	F226U	—	—	—	288.0	24VCT @ 12A	—	—	—	Lug	1	4.63	3.75	4.63	11.2	34.95	31.96	28.97	
99653CH	XFR242	—	Red	—	Red	49.2	24.6VCT @ 2A	Blue	Yellow*	Blue	Wire	1	2.44	2.70	2.30	2.5	10.95	9.31	6.98	
102103CH	XFR2520	F341X	Black	White*	Red	50.4	25.2VCT @ 2A	Orange	Black*	Orange	Wire	2	2.45	2.67	2.26	2.8	14.95	13.46	12.11	
149796CH	XFR2820	F3185U	Black	Red*	Yellow	56.0	28VCT @ 2A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.3	12.95	11.69	8.59	

\* Center tap

† Solder terminals

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Power Cords

- Molded connectors
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C

Quantity SAVE



AWG	Volts	Amps	VA
18	125	10	1250
16	125	12	1500
14	125	15	1875

Part Number	Mfr. Cross Ref. No.	Wt.	Plug Fig.	Length	Color	AWG	Cord Type*	Price			
								1	10	100	250
<b>2-conductor power cord with pigtail</b>											
152186CH	17106BG	.20	1	6'	Beige	18/2	SPT-2	\$1.29	\$1.16	\$1.04	\$ .92
124433CH	ST008	.16	1	6'	Black	18/2	SPT-2	1.15	1.03	.83	.69

<b>2-conductor power cord with pigtail with strain relief</b>											
42041CH	17106	.25	1	6'	Black	18/2	SPT-2	\$1.15	\$1.03	\$ .93	\$ .78

<b>2-conductor "8" style power cord for laptops and power supplies</b>											
189587CH	VW-1	.30	2	6'	Black	18/2	SPT-2	\$2.95	\$2.65	\$2.39	\$2.15

<b>2-conductor "D" style power cord for laptops and power supplies</b>											
200791CH	LL114039	.30	3	6'	Black	18/2	SPT-2	\$2.95	\$2.69	\$2.39	\$1.45

<b>3-conductor power cord with pigtail</b>											
38009CH	17237	.31	4	6'	Gray	18/3	SVT	\$2.39	\$2.15	\$1.72	\$1.29
173809CH	17405	.39	4	6'	Gray	18/3	SJT	2.35	2.15	1.89	1.59
37997CH	17236	.30	4	6'	Black	18/3	SVT	2.79	2.32	2.11	1.99
279662CH	32V86S	.32	4	6'	Black	18/3	SVT	2.79	2.32	2.11	1.99
159409CH	17405B	.37	4	6'	Black	18/3	SJT	2.59	2.15	1.95	1.79
38025CH	17238	.39	4	8'	Black	18/3	SVT	3.29	2.75	2.45	2.25
102007CH	17535B	.49	4	10'	Black	18/3	SVT	3.25	2.92	2.63	2.20
196285CH	LL40378	.80	4	10'	Black	16/3	SJT	3.49	3.14	2.83	2.35
166924CH	17516	.67	4	6' 7"	Black	14/3	SJT	3.95	3.56	3.20	2.88
100271CH	17629B	.88	4	9'	Black	14/3	SJT	4.25	3.82	3.06	2.37

<b>3-conductor right angle power cord with pigtail (Limited Quantity Available)</b>											
184815CH	17629BR	.77	5	7'	Black	14/3	SJT	\$2.35	\$2.10	\$1.89	\$1.86

<b>3-conductor power supply cord (shielded)</b>											
213874CH	17660BG	.40	6	6'	Beige	18/3	SVT	\$3.59	\$3.25	\$2.95	\$2.65
161761CH	17742	.40	6	6'	Black	18/3	SVT	4.49	4.04	3.23	2.42
229219CH	9350819	.45	6	8'	Black	18/3	SJT	4.49	4.04	3.23	2.42
190625CH	37805	.75	6	10'	Beige	18/3	SJT	3.49	3.14	2.51	1.88
142607CH	17502	.63	6	6'	Black	16/3	SJT	4.19	3.77	3.02	2.26

<b>3-conductor power supply cord</b>											
103747CH	17248	.34	6	6'	Gray	18/3	SVT	\$3.89	\$3.50	\$2.80	\$2.49
38041CH	17249	.37	6	6'	Beige	18/3	SVT	3.49	3.15	2.79	2.49
38050CH	17250	.36	6	6'	Black	18/3	SVT	3.75	3.29	2.89	2.17
132118CH	17500	.44	6	6'	Black	18/3	SJT	4.49	4.04	3.23	2.42
117583CH	17502	.37	6	8'	Gray	18/3	SVT	3.49	3.14	2.83	2.54
171096CH	17758	.60	6	8'	Black	18/3	SJT	3.95	3.56	2.84	2.13
102023CH	17501V	.55	6	10'	Black	18/3	SVT	3.95	3.39	3.09	2.79
192727CH	17501J	.64	6	10'	Black	18/3	SJT	3.95	3.56	2.84	2.13
163361CH	6952299	.33	6	14'	Black	18/3	SJT	5.39	4.85	4.39	3.95
159361CH	17602	.57	6	6'	Black	16/3	SJT	3.79	3.41	2.73	2.05
249383CH	LL34977	.72	6	9'	Black	16/3	SJT	3.95	3.55	3.19	2.89
125541CH	17504	.71	6	6' 7"	Black	14/3	SJT	4.95	4.46	4.01	3.12

<b>3-conductor right angle power supply cord (shielded)</b>											
173251CH	17250RS	.40	7	6'	Black	18/3	SVT	\$3.29	\$2.96	\$2.66	\$2.40

<b>3-conductor right angle power supply cord</b>											
117356CH	8120-6177	.41	7	6'	Gray	18/3	SVT	\$3.95	\$3.19	\$2.39	\$1.69
38076CH	17250R	.54	7	6'	Black	18/3	SVT	3.49	3.15	2.85	2.55
177383CH	17507	.66	7	10'	Black	18/3	SJT	3.95	3.59	3.19	2.69

<b>3-conductor piggy backed computer power cord</b>											
84937CH	17669-6	.47	8	6'	Black	18/3	SJT	\$6.95	\$6.25	\$5.65	\$4.75

<b>3-conductor computer power supply extension cord</b>											
28468CH	PEC	.36	9	6'	Black	18/3	SVT	\$3.89	\$3.51	\$2.81	\$2.11
175855CH	PECUL10	.53	9	10'	Black	18/3	SVT	3.29	2.96	2.66	2.40
319804CH	LR94903	.33	9	6'	Gray	18/3	SVT	4.15	3.39	3.15	2.95

<b>3-conductor power cord w/ hospital grade male (green dot)</b>											
132011CH	17006G	.82	10	10'	Gray	16/3	SJT	\$8.45	\$7.61	\$6.84	\$6.16
265412CH	EXITOW	.70	10	10'	Gray	18/3	SJT	7.99	7.29	6.55	5.89
115078CH	17006	.84	10	10'	Black	16/3	SJT	8.95	8.05	6.45	4.89

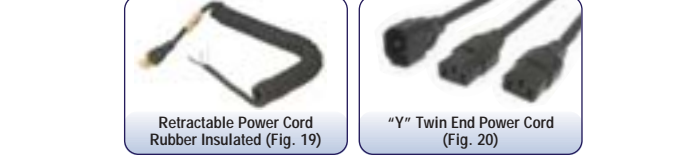
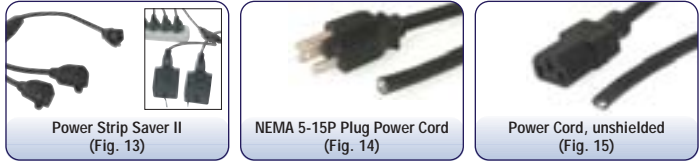
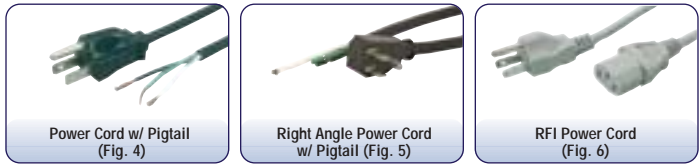
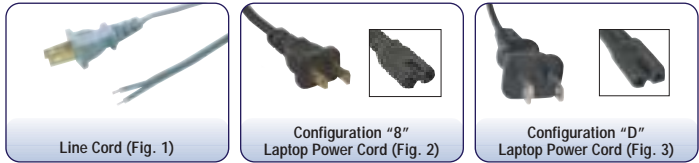
\* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service  
☛ Blue Part No. = Limited Quantity Available

Part Number	Mfr. Cross Ref. No.	Wt.	Plug Fig.	Length	Color	AWG	Cord Type*	Price			
								1	10	100	250
<b>3-conductor monitor power adapter cord</b>											
177447CH	MPC1	.16	11	1'	Black	18/3	SVT	\$2.95	\$2.66	\$2.12	\$1.59

<b>3-conductor power cord (power strip saver)</b>											
199777CH	PSS-1	.16	12	1'	Black	18/3	SVT	\$1.69	\$1.55	\$1.39	\$1.25
208338CH	SY0527BG	.16	12	1'	Beige	18/3	SVT	1.69	1.45	1.09	1.03

<b>3-conducutor power cord ("Y" type power strip saver)</b>											
208346CH	GPR-2006	.38	13	2'	Black	18/3	SVT	\$2.89	\$2.75	\$2.59	\$2.46

\* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service



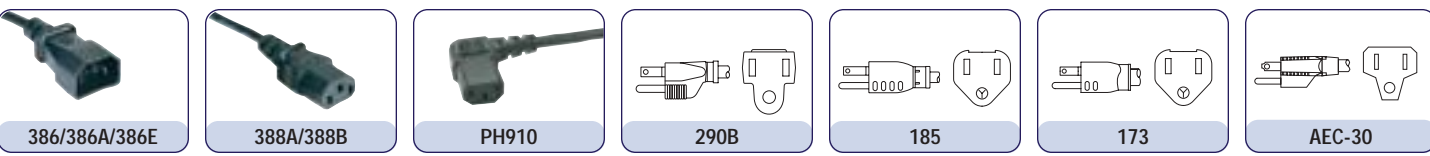
Power Cords

AWG	Volts	Amps	VA
18	125	10	1250
16	125	13	1625
14	125	15	1875



- 3-Conductor Power Cord, NEMA 5-15P plugs:
- Temperature: 60°C: 125V
- Conductors stripped and twisted 5/8"
- Outer jacket stripped 2"

NEW



Part Number	Volex X-Ref.	Fig.	Plug Fig.	Length	Color	AWG (Stranding)	Cord Type*	Price			
								1	10	100	250
<b>3-conductor power cord, NEMA 5-15P plug, PVC</b>											
339670CH	17239	4	290B	8'	Gray	18/3(41x34)	SVT	\$2.79	\$2.05	\$1.95	\$1.88
339688CH	17407	4	290B	8'	Gray	18/3(16x30)	SJT	2.79	2.08	1.97	1.90
339717CH	17276	4	290B	20'	Gray	16/3(26x30)	SJT	8.59	6.44	6.11	5.84

<b>3-conductor power cord, NEMA 5-15P plug, rubber</b>											
339813CH	17238	4	290B	8'	Black	18/3(41x34)	SVT	\$3.55	\$2.62	\$2.48	\$2.41
339830CH	17412	14	290B	12'	Black	18/3(16x30)	SJT	6.05	4.48	4.26	4.11
339696CH	17409	14	290B	8'	Black	18/3(16x30)	SJO	4.85	3.62	3.43	3.28
339709CH	17425	14	290B	15'	Black	16/3(26x30)	SJT	11.05	10.07	8.15	7.30

<b>3-conductor power cord, NEMA 5-15P plug, shielded</b>											
339750CH	17720	14	290B	6'7"	Black	18/3(41x34)	SVT	\$3.19	\$3.03	\$2.88	\$2.74
339768CH	17740	14	290B	6'7"	Black	18/3(41x34)	SVT	3.15	2.99	2.85	2.70
339776CH	17650	14	290B	6'7"	Black	18/3(41x34)	SVT	9.45	7.06	7.03	6.33
339792CH	17614	14	185	6'7"	Black	16/3(65x34)	SJT	4.09	3.88	3.69	2.98
339805CH	17616	14	173	6'7"	Black	14/3(41x30)	SJT	5.19	4.94	4.69	4.46
339864CH	17613	14	290B	9'10"	Black	18/3(41x34)	SJT	5.49	4.05	3.88	3.71
339899CH	17741	14	290B	9'10"	Black	18/3(41x34)	SVT	6.29	5.79	5.21	4.69
339910CH	17615	14	185	9'10"	Black	16/3(35x34)	SJT	4.95	4.85	4.80	4.79
339928CH	17617	14	173	9'10"	Black	14/3(41x30)	SJT	6.45	6.12	6.10	6.05

3-conductor power cord, NEMA 5-15P plug, unshielded											
339653CH	17747	14	290B	6'7"	Black	18/3(41x34)	SVT	\$2.65	\$2.35	\$2.14	\$1.93
339661CH	17514	14	290B	6'7"	Black	16/3(65x34)	SJT	3.65	3.27	2.94	2.65
339733CH	17534	14	290B	6'7"	Black	18/3(41x34)	SVT	2.35	1.74	1.65	1.60
339741CH	17512	14	290B	6'7"	Black	18/3(41x34)	SJT	2.59	2.36	2.16	1.94
339784CH	17516	14	173	6'7"	Black	14/3(41x30)	SJT	4.69	4.02	3.75	3.44
339872CH	17513	14	290B	9'10"	Black	18/3(41x34)	SJT	3.59	3.22	2.93	2.64
339881CH	17515	14	290B	9'10"	Black	16/3(65x34)	SJT	3.79	3.70	3.60	3.54
339901CH	17517	14	173	9'10"	Black	14/3(41x30)	SJT	5.99	5.54	4.99	4.58



Power Cords

- Molded connectors
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C

Quantity SAVE



AWG	Volts	Amps	VA
18	125	10	1250
16	125	12	1500
14	125	15	1875

Part Number	Mfr. Cross Ref. No.	Wt.	Plug Fig.	Length	Color	AWG	Cord Type*	Price			
								1	10	100	250
<b>2-conductor power cord with pigtail</b>											
152186CH	17106BG	.20	1	6'	Beige	18/2	SPT-2	\$1.29	\$1.16	\$1.04	\$ .92
124433CH	ST008	.16	1	6'	Black	18/2	SPT-2	1.15	1.03	.83	.69

<b>2-conductor power cord with pigtail with strain relief</b>											
42041CH	17106	.25	1	6'	Black	18/2	SPT-2	\$1.15	\$1.03	\$ .93	\$ .78

<b>2-conductor "8" style power cord for laptops and power supplies</b>											
189587CH	VW-1	.30	2	6'	Black	18/2	SPT-2	\$2.95	\$2.65	\$2.39	\$2.15

<b>2-conductor "D" style power cord for laptops and power supplies</b>											
200791CH	LL114039	.30	3	6'	Black	18/2	SPT-2	\$2.95	\$2.69	\$2.39	\$1.45

<b>3-conductor power cord with pigtail</b>											
38009CH	17237	.31	4	6'	Gray	18/3	SVT	\$2.39	\$2.15	\$1.72	\$1.29
173809CH	17405	.39	4	6'	Gray	18/3	SJT	2.35	2.15	1.89	1.59
37997CH	17236	.30	4	6'	Black	18/3	SVT	2.79	2.32	2.11	1.99
279662CH	32V86S	.32	4	6'	Black	18/3	SVT	2.79	2.32	2.11	1.99
159409CH	17405B	.37	4	6'	Black	18/3	SJT	2.59	2.15	1.95	1.79
38025CH	17238	.39	4	8'	Black	18/3	SVT	3.29	2.75	2.45	2.25
102007CH	17535B	.49	4	10'	Black	18/3	SVT	3.25	2.92	2.63	2.20
196285CH	LL40378	.80	4	10'	Black	16/3	SJT	3.49	3.14	2.83	2.35
166924CH	17516	.67	4	6' 7"	Black	14/3	SJT	3.95	3.56	3.20	2.88
100271CH	17629B	.88	4	9'	Black	14/3	SJT	4.25	3.82	3.06	2.37

<b>3-conductor right angle power cord with pigtail (Limited Quantity Available)</b>											
184815CH	17629BR	.77	5	7'	Black	14/3	SJT	\$2.35	\$2.10	\$1.89	\$1.86

<b>3-conductor power supply cord (shielded)</b>											
213874CH	17660BG	.40	6	6'	Beige	18/3	SVT	\$3.59	\$3.25	\$2.95	\$2.65
161761CH	17742	.40	6	6'	Black	18/3	SVT	4.49	4.04	3.23	2.42
229219CH	9350819	.45	6	8'	Black	18/3	SJT	4.49	4.04	3.23	2.42
190625CH	37805	.75	6	10'	Beige	18/3	SJT	3.49	3.14	2.51	1.88
142607CH	17502	.63	6	6'	Black	16/3	SJT	4.19	3.77	3.02	2.26

<b>3-conductor power supply cord</b>											
103747CH	17248	.34	6	6'	Gray	18/3	SVT	\$3.89	\$3.50	\$2.80	\$2.49
38041CH	17249	.37	6	6'	Beige	18/3	SVT	3.49	3.15	2.79	2.49
38050CH	17250	.36	6	6'	Black	18/3	SVT	3.75	3.29	2.89	2.17
132118CH	17500	.44	6	6'	Black	18/3	SJT	4.49	4.04	3.23	2.42
117583CH	17502	.37	6	8'	Gray	18/3	SVT	3.49	3.14	2.83	2.54
171096CH	17758	.60	6	8'	Black	18/3	SJT	3.95	3.56	2.84	2.13
102023CH	17501V	.55	6	10'	Black	18/3	SVT	3.95	3.39	3.09	2.79
192727CH	17501J	.64	6	10'	Black	18/3	SJT	3.95	3.56	2.84	2.13
163361CH	6952299	.33	6	14'	Black	18/3	SJT	5.39	4.85	4.39	3.95
159361CH	17602	.57	6	6'	Black	16/3	SJT	3.79	3.41	2.73	2.05
249383CH	LL34977	.72	6	9'	Black	16/3	SJT	3.95	3.55	3.19	2.89
125541CH	17504	.71	6	6' 7"	Black	14/3	SJT	4.95	4.46	4.01	3.12

<b>3-conductor right angle power supply cord (shielded)</b>											
173251CH	17250RS	.40	7	6'	Black	18/3	SVT	\$3.29	\$2.96	\$2.66	\$2.40

<b>3-conductor right angle power supply cord</b>											
117356CH	8120-6177	.41	7	6'	Gray	18/3	SVT	\$3.95	\$3.19	\$2.39	\$1.69
38076CH	17250R	.54	7	6'	Black	18/3	SVT	3.49	3.15	2.85	2.55
177383CH	17507	.66	7	10'	Black	18/3	SJT	3.95	3.59	3.19	2.69

<b>3-conductor piggy backed computer power cord</b>											
84937CH	17669-6	.47	8	6'	Black	18/3	SJT	\$6.95	\$6.25	\$5.65	\$4.75

<b>3-conductor computer power supply extension cord</b>											
28468CH	PEC	.36	9	6'	Black	18/3	SVT	\$3.89	\$3.51	\$2.81	\$2.11
175855CH	PECUL10	.53	9	10'	Black	18/3	SVT	3.29	2.96	2.66	2.40
319804CH	LR94903	.33	9	6'	Gray	18/3	SVT	4.15	3.39	3.15	2.95

<b>3-conductor power cord w/ hospital grade male (green dot)</b>											
132011CH	17006G	.82	10	10'	Gray	16/3	SJT	\$8.45	\$7.61	\$6.84	\$6.16
265412CH	EXITOW	.70	10	10'	Gray	18/3	SJT	7.99	7.29	6.55	5.89
115078CH	17006	.84	10	10'	Black	16/3	SJT	8.95	8.05	6.45	4.89

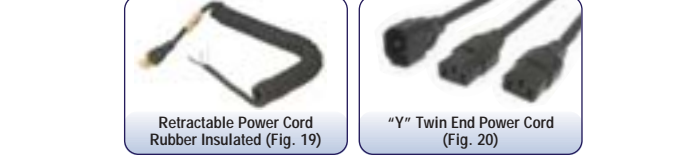
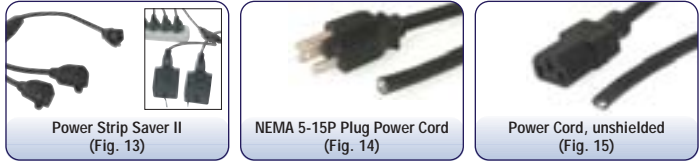
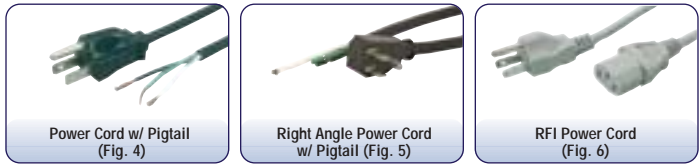
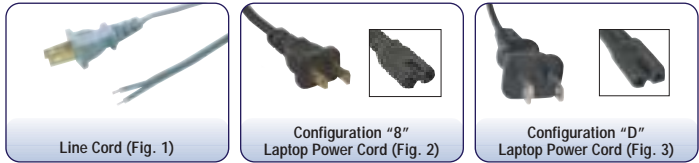
\* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service  
☛ Blue Part No. = Limited Quantity Available

Part Number	Mfr. Cross Ref. No.	Wt.	Plug Fig.	Length	Color	AWG	Cord Type*	Price			
								1	10	100	250
<b>3-conductor monitor power adapter cord</b>											
177447CH	MPC1	.16	11	1'	Black	18/3	SVT	\$2.95	\$2.66	\$2.12	\$1.59

<b>3-conductor power cord (power strip saver)</b>											
199777CH	PSS-1	.16	12	1'	Black	18/3	SVT	\$1.69	\$1.55	\$1.39	\$1.25
208338CH	SY0527BG	.16	12	1'	Beige	18/3	SVT	1.69	1.45	1.09	1.03

<b>3-conductor power cord ("Y" type power strip saver)</b>											
208346CH	GPR-2006	.38	13	2'	Black	18/3	SVT	\$2.89	\$2.75	\$2.59	\$2.46

\* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service



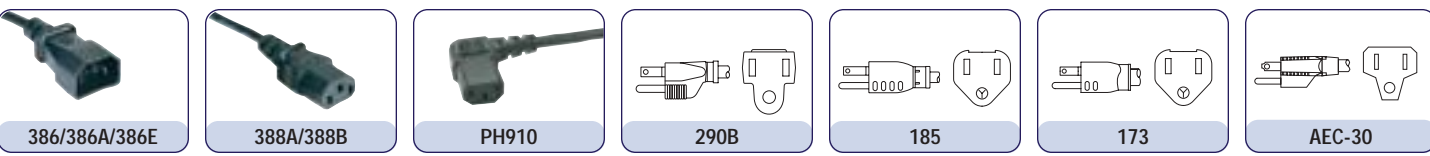
Power Cords

AWG	Volts	Amps	VA
18	125	10	1250
16	125	13	1625
14	125	15	1875



- 3-Conductor Power Cord, NEMA 5-15P plugs:
- Temperature: 60°C: 125V
- Conductors stripped and twisted 5/8"
- Outer jacket stripped 2"

NEW



Part Number	Volex X-Ref.	Fig.	Plug Fig.	Length	Color	AWG (Stranding)	Cord Type*	Price			
								1	10	100	250
<b>3-conductor power cord, NEMA 5-15P plug, PVC</b>											
339670CH	17239	4	290B	8'	Gray	18/3(41x34)	SVT	\$2.79	\$2.05	\$1.95	\$1.88
339688CH	17407	4	290B	8'	Gray	18/3(16x30)	SJT	2.79	2.08	1.97	1.90
339717CH	17276	4	290B	20'	Gray	16/3(26x30)	SJT	8.59	6.44	6.11	5.84

<b>3-conductor power cord, NEMA 5-15P plug, rubber</b>											
339813CH	17238	4	290B	8'	Black	18/3(41x34)	SVT	\$3.55	\$2.62	\$2.48	\$2.41
339830CH	17412	14	290B	12'	Black	18/3(16x30)	SJT	6.05	4.48	4.26	4.11
339696CH	17409	14	290B	8'	Black	18/3(16x30)	SJO	4.85	3.62	3.43	3.28
339709CH	17425	14	290B	15'	Black	16/3(26x30)	SJT	11.05	10.07	8.15	7.30

<b>3-conductor power cord, NEMA 5-15P plug, shielded</b>											
339750CH	17720	14	290B	6'7"	Black	18/3(41x34)	SVT	\$3.19	\$3.03	\$2.88	\$2.74
339768CH	17740	14	290B	6'7"	Black	18/3(41x34)	SVT	3.15	2.99	2.85	2.70
339776CH	17650	14	290B	6'7"	Black	18/3(41x34)	SVT	9.45	7.06	7.03	6.33
339792CH	17614	14	185	6'7"	Black	16/3(65x34)	SJT	4.09	3.88	3.69	2.98
339805CH	17616	14	173	6'7"	Black	14/3(41x30)	SJT	5.19	4.94	4.69	4.46
339864CH	17613	14	290B	9'10"	Black	18/3(41x34)	SJT	5.49	4.05	3.88	3.71
339899CH	17741	14	290B	9'10"	Black	18/3(41x34)	SVT	6.29	5.79	5.21	4.69
339910CH	17615	14	185	9'10"	Black	16/3(35x34)	SJT	4.95	4.85	4.80	4.79
339928CH	17617	14	173	9'10"	Black	14/3(41x30)	SJT	6.45	6.12	6.10	6.05

3-conductor power cord, NEMA 5-15P plug, unshielded											
339653CH	17747	14	290B	6'7"	Black	18/3(41x34)	SVT	\$2.65	\$2.35	\$2.14	\$1.93
339661CH	17514	14	290B	6'7"	Black	16/3(65x34)	SJT	3.65	3.27	2.94	2.65
339733CH	17534	14	290B	6'7"	Black	18/3(41x34)	SVT	2.35	1.74	1.65	1.60
339741CH	17512	14	290B	6'7"	Black	18/3(41x34)	SJT	2.59	2.36	2.16	1.94
339784CH	17516	14	173	6'7"	Black	14/3(41x30)	SJT	4.69	4.02	3.75	3.44
339872CH	17513	14	290B	9'10"	Black	18/3(41x34)	SJT	3.59	3.22	2.93	2.64
339881CH	17515	14	290B	9'10"	Black	16/3(65x34)	SJT	3.79	3.70	3.60	3.54
339901CH	17517	14	173	9'10"	Black	14/3(41x30)	SJT	5.99	5.54	4.99	4.48

## Class 1 Current Transformer

This series can be applied to test, control, display, and record the running of electrical equipment, and to protect the equipment against damage in the AC circuit.

- Maximum voltage: 660VAC
- Size: 3.0"L x 3.2"W x 1.6"T
- Frequency: 50-60Hz
- Weight: 1.1 lbs.

Includes: Mounting bracket and hardware

Part No.	Mfr. Cross Ref. No.	Power	Ratio	1	10	100
174887CH	MSQ30	5VA	200A/5A: 5VA	\$4.49	\$4.04	\$3.64



## Current Sensing Transformer

- Inductance: 5mH
- Turns: 60
- Sensitivity current ( $I_{in}$ ): 1A
- Max. current: 300mA
- Freq. range: 10-50 kHz
- Sensitivity voltage ( $V_{out}$ ): 1V
- Terminating resistor: 50Ω
- Size: 0.8"H x 0.7"W x 0.4"T



Part No.	Mfr. Cross Ref. No.	1	10	100
164718CH	MTC30101	\$2.15	\$1.95	\$1.75

## International Power Cords

- 3-conductor detachable power cords
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- BSI: British Standard Institution



Cord Configuration Chart – End 1



A

Cord Configuration Chart – End 2



117911CH (Fig. 1)



174633CH (Fig. 2)

Part Number	Mfr. Cross Reference No. *	Country	Agency Approvals	Cord Plug Fig.		Length	Cord Color	Conductors	Cord Type	Pricing			
				End 1	End 2					1	10	100	250
117911CH	PCVDE-6B	Europe	All in Fig. 3	A	1	6 ft.	Black	3/.75mm <sup>2</sup>	H05VVf	\$5.49	\$4.95	\$4.45	\$3.75
174633CH	21071H5182	UK/Ireland	BSI	A	2	8 ft.	Black	3/1.0mm <sup>2</sup>	H05VVf	6.49	5.84	5.26	4.73

\* Manufacturer may vary

### European Agency Approvals

Germany	VDE	
Austria	OVE	
Belgium	CEBEC	
Denmark	DEMKO	
Finland	FIMKO	
France	LCIE	
Netherlands	KEMA	
Norway	NEMKO	
Sweden	SEMKO	
Switzerland	SEV	

Fig. 3

## Power Entry Filters and AC Receptacles



Quantity SAVE

SALE



- Frequency: 50/60Hz

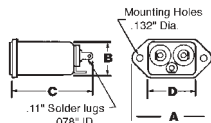


Fig. 1 (Solder Terminals)

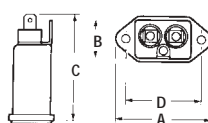


Fig. 2 (Fast-on Terminals)



Fig. 3 (210913CH)

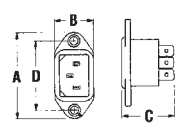


Fig. 4 (Male)

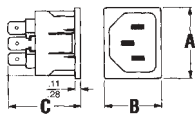


Fig. 5 (Female)

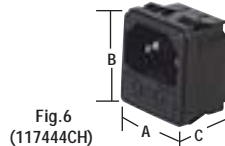


Fig. 6 (117444CH)

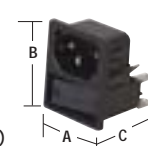


Fig. 7 (184903CH)



Fig. 8 (265527CH)

Part Number	Mfr. Cross Ref. No.	Corcom Cross	Description	Fig.	Current (A)	Voltage (VAC)	Terminals	Agency Approvals	Terminal Size	Dimension (inches)				Pricing			
										A	B	C	D	1	10	100	500
150615CH	03AC1	3EF1	Power entry filter, straight (flanged)	1	3	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.58	1.58	\$5.95	\$5.36	\$4.82	\$4.34
42454CH	06AC1	6EF1	Power entry filter, straight (flanged)	1	6	250	solder	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	8.95	8.06	6.44	4.83
40601CH	03AE1*	3EF1F	Power entry filter, straight (flanged)	2	3	250	fast-on	UL/CSA/VDE	.25"	1.97	0.90	2.16	1.58	5.95	5.36	4.28	3.19
63132CH	06AE1	6EF1F	Power entry filter, straight (flanged)	2	6	250	fast-on	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	6.95	6.29	5.65	5.09
217744CH	10AE1	10EF1F	Power entry filter, straight (flanged)	2	10	250	fast-on	UL/CSA/VDE	.25"	1.96	0.89	2.23	1.58	2.65	2.41	2.19	1.99
210913CH	01GEEW3E		Power entry filter, straight (flanged)	3	1	250	wire	UL/CSA/VDE	4.1"	2.05	0.99	1.78	1.58	5.95	5.36	4.28	3.19
16651CH	JR101		AC power inlet (male) flanged	4	15	250	fast-on	UL/CSA/VDE	.187"	1.96	0.89	1.07	1.58	.79	.71	.57	.41
218288CH	0708-1-CQ		AC power outlet (female) flanged	5	10	250	fast-on	UL/CSA/VDE	.189"	1.97	1.14	1.27	1.58	.42	.39	.35	.32
117444CH	0717 <sup>1</sup>		AC power inlet (male) fused (snap-in)	6	10	250	fast-on	UL/CSA/VDE	.187"	1.18	1.30	1.21	N/A	1.95	1.79	1.59	1.45
265527CH	WS-044		AC power inlet (male) fused	8	10	250	fast-on	UL/CSA/VDE	.185"	1.73	1.29	0.77	1.42	1.79	1.59	1.39	1.29
321621CH	WS-044A		AC power inlet (male) fused (snap-in)	8	10	250	fast-on	UL/CSA/VDE	.185"	1.73	1.29	0.77	1.42	1.79	1.59	1.39	1.29

### Other Manufacturers — Limited Great Deals

165016CH	SUP-J15G-E-2	Power entry filter, straight (flanged)	1	15	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.18	1.58	\$5.95	\$5.36	\$4.28	\$3.21
147109CH	42R02	AC power inlet (male) snap-in	4	15	250	fast-on	UL/CSA/VDE	.25"	1.22	0.94	1.13	N/A	.26	.23	.21	.19
147900CH	P0707*	AC power inlet (male) flanged	4	15	250	solder	UL/CSA/VDE	.16"	1.96	0.89	1.04	1.58	.69	.62	.50	.37
184903CH	42R36315210U	AC power inlet (male) w/ switch (snap-in)	7	15	250	fast-on	UL/CSA/VDE	.25"	1.30	1.58	1.42	N/A	1.95	1.69	1.39	1.05

\* Manufacturer may vary <sup>1</sup> Includes spare fuse holder – Fuse type 5mm x 20mm (250V) Blue Part No. = Limited Quantity Available

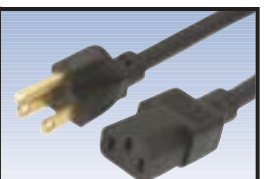


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### Need Power Cords?

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Save 10% or more on most batteries!

## Lead Acid Batteries

- Sealed
- UL approved
- Rechargeable
- Two-year warranty



264014CH



264022CH



264031CH



264049CH



264057CH



264065CH



264073CH

Part Number	Product Number	Nominal Voltage	Amp-Hrs.	Cross Reference				Terminal Size	Size (L" x W" x H")	Wt. (lbs.)	Pricing	
				Panasonic	YUASA	Eagle Picher	Tempest				1	10
264014CH	TY-6-4.5	6	4.5	LCR6VP	NP4-6	CF16V4	TR-4-6	Quick connect 0.187"	2.8 x 1.9 x 4.0	1.9	\$8.99	\$7.89
317024CH	LA-TY-6-12	6	12.0	—	—	—	—	Quick connect 0.187"	5.9 x 1.9 x 3.7	4.6	14.69	12.75
318941CH	LA-TY-12-.8	12	0.8	—	—	—	—	9" wire w/o connector	3.8 x 1.0 x 2.4	0.8	16.39	15.19
318844CH	LA-TY-12-1.2	12	1.2	—	—	—	—	Quick connect 0.187"	3.8 x 1.7 x 2.1	1.3	13.99	12.69
264031CH	TY-12-2.3	12	2.3	LCR12V2.2P	NP2.3-12	CF12V1.5	TR2.3-12	Quick connect 0.187"	7.0 x 1.3 x 2.4	2.1	15.39	14.59
318924CH	LA-TY-12-3.2	12	3.2	—	—	—	—	Quick connect 0.187"	5.3 x 2.7 x 2.4	3.1	16.19	14.69
264049CH	TY-12-4.5	12	4.5	LCR12V4PF	NP412	CF12V4	TR4-12	Quick connect 0.187"	3.5 x 2.8 x 4.0	3.8	15.79	14.55
264057CH	TY-12-7	12	7.0	LCR12V7.2BP	NP712	CFM12V65	TR7.5-12	Quick connect 0.187"	5.9 x 2.6 x 3.7	5.6	16.95	15.15
264065CH	TY-12-12	12	12.0	PS12120	—	CFM12V12	TR12-12	Quick connect 0.187"	5.9 x 3.9 x 3.9	9.0	30.65	28.25
264073CH	TY-12-18	12	18.0	LCR12V17BP	NPG18-12	CF12V18	TR18-12	Quick connect 0.472"	7.1 x 3.0 x 6.6	13.3	32.85	28.15
318852CH	LA-TY-12-35	12	35.0	—	—	—	—	Quick connect 0.644"	7.6 x 5.1 x 6.3	27.6	47.79	41.69

## TEMPEST Lead Acid Batteries

- Color-coded terminals
- Sealed
- Rechargeable
- Nominal voltage: 12
- UL approved
- Two-year warranty



Quantity SAVE



218421CH



218464CH

Part Number	Product Number	Amp-Hrs.	Charging Voltage		Terminal Size	Size (L" x W" x H")	Wt. (lbs.)	Pricing	
			Standby	Cyclic				1	10
218421CH	TR22-12	22	13.6-13.8	14.5-14.9	Terminal pad 0.472"Dia.	7.2 x 3.0 x 6.6	15.0	\$39.95	\$35.95
218464CH	TR70-12B	70	13.6-13.8	14.5-14.9	Quick connect 0.590"	10.3 x 6.7 x 8.2	55.1	148.95	111.69

## Zinc Chloride, Silver Oxide &amp; Alkaline Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.

Quantity SAVE



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

## Zinc Chloride

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
151087CH	AA	1	AA	1.5	700	Barrel pressure	1.9"L x 0.55"Dia. <del>\$22</del>	\$2.20	\$1.17	\$1.16
151095CH	GF6F22	3	9V	9	300	—	1.7"L x 1.0"W x 0.67"Dia.	1.25	.99	.79

## Silver Oxide

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
140783CH	357	2	Button	1.55	1600	—	0.454"Dia.	\$1.75	\$1.49	\$1.25

## Alkaline

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
249181CH	LR031.5V	4	AAA	1.5	—	3-pack	1.7"L x 0.40"Dia.	\$1.49	\$1.34	\$1.09
249455CH	—	5	AA	1.5	—	3-pack	1.97"L x 0.55"Dia.	1.29	1.23	1.16
150965CH	Rayovac 840	6	—	4.5	600	Batt. pack w/con. (Apple)	1.14"L x 0.73"W x 0.96"H	9.95	8.96	8.06
198791CH	MN1604	3	9V	9	500	—	1.7"L x 1.0"W x 0.67"H	2.85	2.55	2.29

Blue Part No. = Limited Quantity Available

## Not All Are Created Alike!

When you're choosing batteries, most think of two criteria. First, get the right size and chemistry (e.g. - AA NiMH), and second, find the lowest price. Few however, really consider how power-hungry the device is.

But just like a circuit's signal-to-noise ratio, a battery's capacity-to-demand ratio is also very important. Consider a circuit that "demands" 1,400 mA. If powered by batteries with a 1,600 mA capacity, the ratio is about 1.14. Using a battery with 1,800 mA capacity doubles the headroom (fractional part) from 1.14 to 1.28. Stated another way, the battery can discharge significantly more before the voltage drops below threshold.

**Practical Practices**  
Money Saving Tips for the Engineer

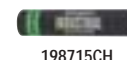


## Eveready® Energizer® Alkaline Batteries

SALE



198707CH



198715CH



198731CH



Energizer® and the Energizer Bunny® are registered trademarks of the Eveready Battery Company, Inc.

- Single-use Energizer® alkaline batteries for heavy drain and frequent use applications
- Prepackaged: order in increments of 4

Part No.	Size	4	8	12
198707CH	AA	\$0.64	\$0.63	\$0.62
198715CH	AAA	.49	.47	.44
Part No.	Size	1	4	
198731CH	9-volt	\$1.89	\$1.85	
215845CH	D	1.12	1.09	

## Over 99% of Our Products Are In Stock

Place your order by 6PM EST for same business day shipment.



## Rechargeable Battery Packs

Jameco offers an extensive line of battery packs available in economical NiCd and powerful NiMH compositions.



See page 186 for details.

**SALE**

## Lithium, Lithium Ion and NiCd Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.

**SALE**

**Quantity SAVE**



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20



Fig. 21



Fig. 22



Fig. 23



Fig. 24



Fig. 25



Fig. 26



Fig. 27



Fig. 28



Fig. 29



Fig. 30



Fig. 31



Fig. 32



Fig. 33

### Lithium & Lithium Ion - Rechargeable

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
240258CH	CR123A	1	—	3	1300	Photo/computer	1.36"L x 0.65"Dia.	\$2.65	\$2.45	\$2.35
249471CH	CR123A*	1	—	3	1300	Photo/computer	1.34"L x 0.65"Dia.	2.59	2.35	2.09
33371CH	TL5101P	2	1/2AA	3.6	850	Barrel w/leads (clock/mem.)	0.93"L x 0.56"Dia.	5.79	5.27	4.45
33398CH	TL5104P	3	AA	3.6	1900	Barrel w/leads (clock/mem.)	1.88"L x 0.56"Dia.	5.95	5.49	5.19
146114CH	TL2100S	4	AA	3.6	1900	Barrel pressure (clock/mem.)	1.91"L x 0.56"Dia.	6.95	6.29	5.65
33427CH	TL5242W	5	—	3.6	1900	Battery pack w/plug (PC)	2.38"L x 0.65"W x 0.71"H	7.49	6.75	6.09
240186CH	CR1616	—	Coin Cell	3	55	Clock/memory/watch	0.07"Dia. x 0.61"Th.	\$0.69	.62	.56
240207CH	CR2016	—	Coin Cell	3	75	Clock/memory/watch	0.07"Dia. x 0.79"Th.	\$0.38	.34	.31
240215CH	CR2025	—	Coin Cell	3	150	Clock/memory/watch	0.10"Dia. x 0.78"Th.	\$0.32	.29	.27
11789CH	CR2325	6	Coin Cell	3	165	Clock/memory/watch	0.91"Dia. x 0.13"Th.	1.65	1.47	1.25
252232CH	BR2325/1VG	7	Coin Cell	3	175	Vertical, PC mount	1.00"Dia. x 0.90"Th.	1.49	1.39	1.35
14162CH	CR2032	—	Coin Cell	3	180	Clock/memory/watch	0.79"Dia. x 0.13"Th.	1.25	1.12	.90
240223CH	CR2335	—	Coin Cell	3	300	Clock/memory/watch	0.14"Dia. x 0.92"Th.	\$1.22	.99	.89
240231CH	CR2450	—	Coin Cell	3	500	Clock/memory/watch	0.18"Dia. x 0.97"Th.	1.09	.93	.69
126754CH	TL5101S	8	Sub-AA	3.6	850	Macintosh*	0.95"L x 0.56"Dia.	6.95	6.29	5.65
240266CH	ER14250	9	Sub-AA	3.6	1000	Consumer tip	1.00"L x 0.55"Dia.	3.99	3.89	3.81
263898CH	ER14250	10	Sub-AA	3.6	1000	With axial leads	1.00"L x 0.55"Dia.	4.29	4.11	3.90
263978CH	ER14335	10	Sub-AA	3.6	1450	With axial leads	1.30"L x 0.55"Dia.	4.79	4.62	4.36
263951CH	ER14335	11	Sub-AA	3.6	1450	With solder tabs	1.30"L x 0.55"Dia.	4.59	4.43	4.19
240282CH	ER14335	12	Sub-AA	3.6	1450	Consumer tip	1.30"L x 0.55"Dia.	\$4.59	4.15	3.74
263943CH	ER14505	13	AA	3.6	2100	With axial leads	2.00"L x 0.57"Dia.	5.35	4.99	4.70
240303CH	ER14505	14	AA	3.6	2400	Consumer tip	2.00"L x 0.55"Dia.	5.19	4.85	4.55
263935CH	ER14505	15	AA	3.6	2100	With solder tabs	2.00"L x 0.55"Dia.	4.99	4.75	4.52
240320CH	ER17335	16	Sub-A	3.6	1450	Consumer tip	1.30"L x 0.67"Dia.	5.25	4.73	3.78
264217CH	ER17335	—	Sub-A	3.6	1450	With axial leads	1.30"L x 0.67"Dia.	5.55	4.99	4.59
263986CH	ER26500	—	C	3.6	8500	With axial leads	2.00"L x 1.02"Dia.	13.19	12.42	11.67
240160CH	ER26500	17	C	3.6	8500	Consumer tip	2.00"L x 1.02"Dia.	11.95	11.50	11.05
263994CH	ER34615	—	D	3.6	16,500	With axial leads	2.40"L x 1.34"Dia.	16.65	15.68	14.73
240151CH	ER34615	18	D	3.6	16,500	Consumer tip	2.40"L x 1.34"Dia.	15.05	14.49	13.95
244646CH	UR18650H1	19	—	3.6	2200	Flat top lithium ion (rechargeable)	2.60"L x 0.71"Dia.	17.55	15.79	14.21

\* Samsung

### NiCd - Rechargeable

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
244662CH	AAA-240	20	AAA	1.2	240	Flat top	1.70"L x 0.40"Dia.	\$1.89	\$1.69	\$1.52
244540CH	AAA-240-CT	21	AAA	1.2	240	Consumer tip	1.70"L x 0.40"Dia.	1.89	1.85	1.80
244380CH	2/3AA-320	22	2/3AA	1.2	320	Flat top	1.10"L x 0.55"Dia.	\$1.35	1.19	1.07
244443CH	4/5AA-600	23	4/5AA	1.2	600	Flat top	1.70"L x 0.55"Dia.	\$1.15	.99	.89
244486CH	AA-600	24	AA	1.2	600	Flat top	1.90"L x 0.55"Dia.	1.25	1.22	1.19
244507CH	AA-1000	24	AA	1.2	1000	Flat top	1.90"L x 0.55"Dia.	\$2.65	2.39	2.15
261657CH	AA-700-CT	25	AA	1.2	700	Consumer tip	1.90"L x 0.55"Dia.	1.37	1.25	.96
244515CH	AA-1000-CT	25	AA	1.2	1000	Consumer tip	1.90"L x 0.55"Dia.	2.65	2.43	2.33
244355CH	1/3A-250	26	1/3A	1.2	250	Flat top	0.65"L x 0.65"Dia.	\$1.31	1.19	1.07
244371CH	2/3A-650	27	2/3A	1.2	650	Flat top	1.10"L x 0.65"Dia.	\$1.79	1.59	1.43
244603CH	2/3A-100HD	27	2/3A	1.2	1100	Flat top	1.10"L x 0.65"Dia.	\$1.99	1.79	1.61
244427CH	4/5A-1100	28	4/5A	1.2	1100	Flat top	1.70"L x 0.65"Dia.	\$1.65	1.49	1.34
244574CH	SC-1500	29	Sub-C	1.2	1500	Flat top	1.70"L x 0.89"Dia.	2.15	1.98	1.87
244953CH	SC-1500HT	29	Sub-C	1.2	1500	Flat top, high temperature	1.70"L x 0.89"Dia.	\$2.39	2.15	1.94
244654CH	SC-1900	29	Sub-C	1.2	1900	Flat top	1.70"L x 0.89"Dia.	3.69	3.23	3.08
244401CH	2/3SC-700	30	2/3SC	1.2	700	Flat top	1.00"L x 0.89"Dia.	\$3.15	2.85	2.56
244451CH	4/5SC-1250	—	4/5SC	1.2	1250	Flat top	1.30"L x 0.89"Dia.	2.85	2.56	2.35
244460CH	5/4SC-2300	—	5/4SC	1.2	2300	Flat top	1.90"L x 0.89"Dia.	\$6.05	5.45	4.90
244363CH	1/3C-700	—	1/3C	1.2	700	Flat top	0.87"L x 1.00"Dia.	\$2.59	2.35	2.12
244339CH	1/2C-800	31	1/2C	1.2	800	Flat top	0.95"L x 1.00"Dia.	\$2.89	2.59	2.33
244671CH	C-2000	32	C	1.2	2000	Flat top	1.90"L x 1.00"Dia.	4.25	3.82	3.06
244523CH	C-2200-CT	33	C	1.2	2200	Consumer tip	1.90"L x 1.00"Dia.	4.25	3.96	3.92
244531CH	C-2500-CT	33	C	1.2	2500	Consumer tip	1.90"L x 1.00"Dia.	\$5.15	4.65	4.19

Save 10% or more on most batteries!

**SALE**

## NiCd and NiMH Batteries

**SALE**



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12

### NiCd - Rechargeable (Continued)

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
244961CH	C-2500HT	1	C	1.2	2500	Flat top, high temperature	1.90"L x 1.00"Dia.	<del>\$6.25</del> \$4.75	\$4.28	\$3.85
244689CH	C-2500	1	C	1.2	2500	Flat top	1.90"L x 1.00"Dia.	<del>\$5.15</del> 4.65	4.19	3.35
244347CH	1/2D-2200	2	1/2 D	1.2	2200	Flat top	1.40"L x 1.30"Dia.	<del>\$4.29</del> 3.89	3.50	3.15
244566CH	2/3D-2800	—	2/3 D	1.2	2800	Flat top	1.70"L x 1.30"Dia.	<del>\$5.25</del> 4.75	4.28	3.42
244697CH	D-5000	3	D	1.2	5000	Flat top	2.40"L x 1.30"Dia.	<del>\$7.79</del> 6.99	6.29	5.66
244558CH	D-5000-CT	4	D	1.2	5000	Consumer tip	2.40"L x 1.30"Dia.	7.79	7.60	7.45
244419CH	3/2D(F)-8000	5	F	1.2	8000	Flat top	3.45"L x 1.30"Dia.	<del>\$20.55</del> 18.49	16.64	13.31
126720CH	351FT	6	—	3.6	60	2-lead (pin), barrel	0.72"L x 1.28"Dia.	4.49	4.05	3.65
119116CH	3/V60R	7	—	3.6	60	3-lead (pin), barrel	0.74"L x 0.61"Dia.	3.75	3.39	3.05
101653CH	NA101-1	8	—	3.6	60	2-lead (eyelet), barrel	0.72"L x 0.61"Dia.	5.49	4.95	3.95

### NiMH - Rechargeable

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
244937CH	PRIZ-F6(48)-700	—	—	1.2	700	Flat top-prismatic	1.86"L x 0.65"W x 0.23"T	<del>\$3.15</del> \$2.85	\$2.56	\$2.31
244945CH	PRIZ-7/5F6-1100	9	—	1.2	1100	Flat top-prismatic	2.63"L x 0.65"W x 0.23"T	<del>\$4.15</del> 3.75	3.38	3.04
244582CH	2/3AAA-300	10	2/3 AAA	1.2	300	Flat top	1.11"L x 0.40"Dia.	1.34	1.21	1.09
244785CH	5/4AAA-750	11	5/4 AAA	1.2	750	Flat top	2.00"L x 0.40"Dia.	2.29	2.06	1.65
261665CH	AAA-700FT	12	AAA	1.2	700	Flat top	1.70"L x 0.40"Dia.	2.25	1.99	1.91
244806CH	4/5AA-1200	13	4/5 AA	1.2	1200	Flat top	1.70"L x 0.55"Dia.	<del>\$3.25</del> 2.95	2.66	2.12
244814CH	AA-1800	14	AA	1.2	1800	Flat top	1.90"L x 0.55"Dia.	2.35	2.12	1.99
244822CH	AA-1800-CT	15	AA	1.2	1800	Consumer tip	1.90"L x 0.55"Dia.	2.35	2.12	1.99
244831CH	4/3AA-1900	16	4/3 AA	1.2	1900	Flat top	2.60"L x 0.55"Dia.	<del>\$6.89</del> 6.19	5.57	4.46
244857CH	2/3A-1100	17	2/3 A	1.2	1100	Flat top	1.10"L x 0.65"Dia.	<del>\$3.59</del> 3.25	2.92	2.63
244864CH	4/5A-1800	18	4/5 A	1.2	1800	Flat top	1.70"L x 0.65"Dia.	<del>\$3.15</del> 2.85	2.56	2.36
244970CH	A-2200	19	A	1.2	2200	Flat top	1.90"L x 0.65"Dia.	<del>\$3.69</del> 3.35	3.02	2.78
244873CH	4/3A-2500	20	4/3 A	1.2	2500	Flat top	2.60"L x 0.65"Dia.	<del>\$5.29</del> 4.79	4.31	4.17
244890CH	SC-2900-HD	21	Sub-C	1.2	2900	Flat top, high discharge	1.70"L x 0.90"Dia.	6.49	6.04	5.89
244902CH	D-9000	22	D	1.2	9000	Flat top	2.40"L x 1.30"Dia.	<del>\$24.45</del> 19.29	17.36	13.89
244911CH	D-9000-CT	22	D	1.2	9000	Consumer tip	2.40"L x 1.30"Dia.	21.45	17.54	16.08
244620CH	9V-200	23	9V	9	200	Snaps	1.94"L x 0.65"Dia.	7.79	6.92	6.22



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20



Fig. 21



Fig. 22



Fig. 23

**DANTONA**  
HIGH-RECHARGEABLE

## Long-Lasting Rechargeable NiMH Batteries

**SALE**

Why buy & throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCd batteries, so they're ideal for power-hungry devices like digital cameras and camcorders.

### NiMH Batteries

Part No.	Description	1	10	25	100
231095CH	2x AAA, 600mAh	\$6.95	\$6.25	\$5.65	\$5.05
231087CH	4x AA, 1600mAh	13.95	12.55	11.29	10.19
231116CH	2x C, 3000mAh	12.49	11.24	10.12	9.11
231124CH	2x D, 7000mAh	<del>\$19.95</del> 17.99	16.19	12.95	10.96
231108CH	1x "9V", 150mAh	8.39	7.95	7.59	7.19



231095CH



231087CH



231116CH



231124CH



231108CH

## NiMH & NiCd Battery Charger

Charge your AA or AAA NiMH and AA NiCd batteries with this 8-hour battery charger. Simply plug into a wall outlet. Red LED indicates charging and green LED indicates ready to use.

- Charging bay allows 4AA or 4AAA batteries to be charged at the same time (only AA NiCd)
- Size: 2.8" x 2.4" x 4.6"
- Weight: 1.0 lb.



**SALE**

Part No.	Description	1	10
217533CH	Plug-in charger	\$3.09	\$2.79

Blue Part No. = Limited Quantity Available



## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange.

Details on page 258.



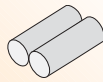
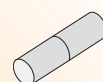
## Rechargeable Battery Packs

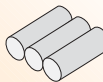
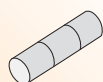
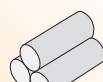
Jameco ReliaPro™ rechargeable battery packs are available in many configurations and capacities. Each series-connected pack is available with 6" lead wires or 0.125"W x 0.4"L solder tab hook-ups. Available in economical NiCd and powerful NiMH compositions.

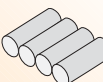
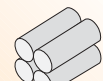
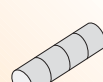
• AA single cell: 1.92"L x 0.56"Dia. (48.8mm x 14.2mm)

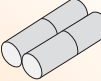
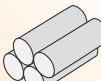
• SC single cell: 1.65"L x 0.86"Dia. (41.9mm x 21.8mm)

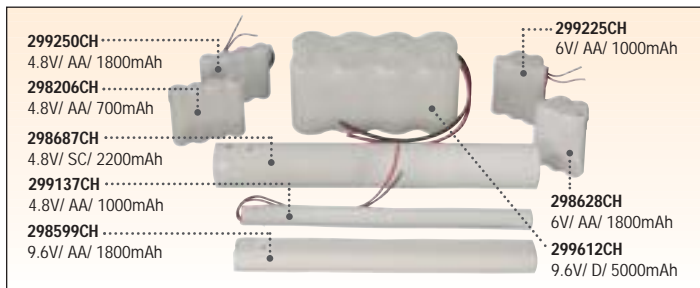
• D single cell: 2.36"L x 1.26"Dia. (59.9mm x 32.0mm)

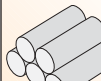
				Solder Tabs			Lead Wires				
2.4 Volts	Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
					1	10	25		1	10	25
	AA	NiCAD	700	298097CH	\$4.35	\$4.26	\$4.14	298935CH	\$5.35	\$5.22	\$5.09
	AA	NiCAD	1000	298337CH	5.35	4.87	4.33	299081CH	6.55	6.32	6.05
	AA	NiMH	1800	298484CH	9.39	8.54	7.59	299233CH	11.29	10.77	10.28
	SC	NiCAD	2200	298636CH	10.35	9.82	9.33	299381CH	11.29	10.77	10.28
	D	NiCAD	5000	298783CH	24.75	22.25	19.78	299532CH	24.75	22.25	19.78
	AA	NiCAD	700	298214CH	\$4.35	\$3.95	\$3.52	298960CH	\$5.29	\$5.22	\$5.09
	AA	NiCAD	1000	298361CH	5.39	4.90	4.35	299111CH	6.55	6.34	6.07
	AA	NiMH	1800	298513CH	9.49	8.55	7.59	299268CH	11.29	10.77	10.28
	SC	NiCAD	2200	298661CH	10.35	9.82	9.33	299410CH	11.29	10.77	10.28
	D	NiCAD	5000	298812CH	24.69	22.24	19.77	299567CH	24.69	22.24	19.77


					Solder Tabs			Lead Wires			
3.6 Volts	Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
					1	10	25		1	10	25
	AA	NiCAD	700	298193CH	\$6.19	\$5.92	\$5.49	298943CH	\$7.15	\$6.87	\$6.57
	AA	NiCAD	1000	298345CH	8.05	7.31	6.50	299090CH	9.35	8.61	7.84
	AA	NiMH	1800	298492CH	11.89	11.30	10.47	299241CH	12.85	11.78	10.48
	SC	NiCAD	2200	298644CH	12.25	11.00	9.90	299399CH	13.19	11.95	10.85
	D	NiCAD	5000	298791CH	35.25	31.70	28.53	299541CH	36.19	32.65	29.48
	AA	NiCAD	700	298222CH	\$6.19	\$5.92	\$5.26	298978CH	\$8.75	\$8.07	\$7.35
	AA	NiCAD	1000	298370CH	8.09	7.34	6.53	299129CH	9.35	8.57	7.81
	AA	NiMH	1800	298521CH	10.35	9.82	9.33	299276CH	12.85	12.25	11.69
	SC	NiCAD	2200	298679CH	12.25	11.02	9.92	299428CH	13.19	11.97	10.87
	D	NiCAD	5000	298821CH	35.25	31.70	28.53	299575CH	36.19	32.65	29.48
	AA	NiCAD	700	298302CH	\$6.49	\$5.90	\$5.24	299057CH	\$6.49	\$5.90	\$5.24
	AA	NiCAD	1000	298450CH	8.05	7.32	6.50	299209CH	8.05	7.31	6.50
	AA	NiMH	1800	298601CH	13.09	11.78	10.48	299356CH	15.99	14.48	13.13
	SC	NiCAD	2200	298759CH	15.09	13.53	12.18	299508CH	16.05	14.48	13.13
	D	NiCAD	5000	298901CH	41.49	37.34	33.61	299655CH	37.09	33.37	29.66

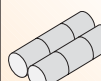
				Solder Tabs			Lead Wires				
4.8 Volts	Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
					1	10	25		1	10	25
	AA	NiCAD	700	298206CH	\$7.79	\$7.08	\$6.37	298951CH	\$8.75	\$8.03	\$7.32
	AA	NiCAD	1000	298353CH	10.69	9.62	8.66	299102CH	11.65	10.57	9.61
	AA	NiMH	1800	298505CH	15.09	14.33	13.35	299250CH	16.05	15.28	14.56
	SC	NiCAD	2200	298652CH	15.45	13.90	12.51	299401CH	16.39	14.85	13.46
	D	NiCAD	5000	298804CH	44.49	40.05	36.04	299559CH	45.45	41.00	36.99
	AA	NiCAD	700	298249CH	\$7.79	\$7.06	\$6.36	298994CH	\$8.69	\$8.01	\$7.31
	AA	NiCAD	1000	298396CH	10.69	9.60	8.65	299145CH	11.65	10.55	9.60
	AA	NiMH	1800	298548CH	15.09	14.32	13.30	299292CH	16.05	15.28	14.56
	SC	NiCAD	2200	298695CH	15.45	13.64	12.51	299444CH	16.39	14.85	13.46
	D	NiCAD	5000	298847CH	44.35	39.89	35.90	299591CH	45.29	40.84	36.85
	AA	NiCAD	700	298231CH	\$7.85	\$7.12	\$6.40	298986CH	\$8.75	\$8.07	\$7.35
	AA	NiCAD	1000	298388CH	10.69	9.62	8.66	299137CH	11.65	10.57	9.61
	AA	NiMH	1800	298530CH	11.89	11.30	10.74	299284CH	16.05	15.28	14.56
	SC	NiCAD	2200	298687CH	15.45	13.91	12.52	299436CH	16.39	14.86	13.47
	D	NiCAD	5000	298839CH	44.49	40.02	36.02	299583CH	45.45	40.97	36.97

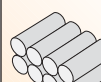
	AA	NiCAD	700	298273CH	\$7.79	\$7.08	\$6.37	299022CH	\$8.75	\$8.03	\$7.32
	AA	NiCAD	1000	298425CH	10.69	9.62	8.66	299170CH	11.65	10.57	9.61
	AA	NiMH	1800	298572CH	15.09	14.32	13.34	299321CH	16.05	15.28	14.56
	SC	NiCAD	2200	298724CH	15.45	13.90	12.51	299479CH	16.39	14.85	13.46
	D	NiCAD	5000	298871CH	44.49	40.03	36.03	299621CH	45.45	40.98	36.98
	AA	NiCAD	700	298311CH	\$8.35	\$7.57	\$6.81	299065CH	\$8.65	\$7.85	\$6.97
	AA	NiCAD	1000	298468CH	10.79	9.73	8.65	299217CH	12.19	11.08	10.06
	AA	NiMH	1800	298610CH	16.95	15.23	13.71	299364CH	16.65	14.97	14.22
	SC	NiCAD	2200	298767CH	16.95	15.23	13.71	299516CH	17.89	16.18	14.66
	D	NiCAD	5000	298919CH	47.19	42.46	40.34	299663CH	48.15	43.41	39.40

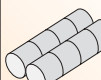


				Solder Tabs			Lead Wires				
6.0 Volts	Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
					1	10	25		1	10	25
	AA	NiCAD	700	298329CH	\$9.25	\$8.00	\$7.60	299073CH	\$10.29	\$8.95	\$8.55
	AA	NiCAD	1000	298476CH	11.25	10.13	9.11	299225CH	13.25	11.08	10.06
	AA	NiMH	1800	298628CH	18.85	16.07	15.27	299372CH	19.75	17.02	16.22
	SC	NiCAD	2200	298775CH	18.79	15.99	14.39	299524CH	19.75	16.94	15.34
	D	NiCAD	5000	298927CH	52.85	44.92	42.67	299680CH	53.79	45.87	43.57

				Solder Tabs			Lead Wires				
7.2 Volts	Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
					1	10	25		1	10	25
	AA	NiCAD	700	298257CH	\$11.75	\$10.58	\$9.53	299006CH	\$12.75	\$11.53	\$10.53
	AA	NiCAD	1000	298409CH	15.99	14.40	12.96	299153CH	16.95	15.35	13.91
	AA	NiMH	1800	298556CH	20.29	18.25	16.43	299305CH	21.25	19.20	17.38
	SC	NiCAD	2200	298708CH	23.15	20.81	18.73	299452CH	24.09	21.76	19.68
	D	NiCAD	5000	298855CH	66.49	59.83	59.09	299604CH	67.45	60.78	59.09

	AA	NiCAD	700	298281CH	\$11.79	\$10.59	\$9.54	299031CH	\$12.75	\$11.54	\$10.49
	AA	NiCAD	1000	298433CH	16.05	14.41	12.97	299188CH	16.95	15.36	13.92
	AA	NiMH	1800	298581CH	20.29	18.25	16.43	299330CH	21.25	19.20	17.38
	SC	NiCAD	2200	298732CH	23.15	20.82	18.74	299487CH	24.09	21.77	19.69
	D	NiCAD	5000	298880CH	66.49	59.83	59.29	299639CH	67.45	60.78	59.29

				Solder Tabs			Lead Wires					
9.6 Volts		Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
						1	10	25		1	10	25
	AA	NiCAD	700	298265CH	\$15.69	\$14.12	\$12.70	299014CH	\$16.65	\$15.07	\$13.65	
	AA	NiCAD	1000	298417CH	21.35	19.20	17.27	299161CH	22.29	20.15	18.23	
	AA	NiMH	1800	298564CH	26.35	23.70	21.34	299313CH	27.29	24.65	22.29	
	SC	NiCAD	2200	298716CH	30.85	27.75	24.98	299461CH	31.79	28.70	25.93	
	D	NiCAD	5000	298863CH	88.65	79.76	78.78	299612CH	89.59	80.71	78.78	

	AA	NiCAD	700	298290CH	\$12.25	\$11.02	\$9.92	299049CH	\$12.25	\$11.02	\$9.92
	AA	NiCAD	1000	298441CH	15.19	13.66	12.29	299196CH	16.15	14.61	13.24
	AA	NiMH	1800	298599CH	23.65	21.27	19.14	299348CH	24.59	22.22	20.09
	SC	NiCAD	2200	298741CH	24.49	22.03	19.83	299495CH	25.45	22.98	20.78
	D	NiCAD	5000	298898CH	63.35	57.01	54.16	299647CH	64.29	57.96	55.06

## Rechargeable Batteries Application Handbook

## Battery Holders

Quantity SAVE

**SALE**

A Jameco EXCLUSIVE

Eliminate battery mounting problems in portable DC power applications and products. These holders are made from special materials that maintain retention properties longer than conventional holders. They can come with leads, or attached to battery holders.

Part No.	Mfr. Cross Ref.	Fig.	No. of Cells	Connector	Sides	Features	1	10	100	500
216071CH	BH-311-2A	1	1-AA	Wires	Single		\$.69	\$.62	\$.56	\$.46
216080CH	BH-321-2A	3	2-AA	Wires	Single		.69	.62	.56	.50
216098CH	BH-321-4A	3	2-AA	Wires	Single	With mounting tabs	.59	.53	.42	.32
216101CH	SBH-321-2A	5	2-AA	Wires	Single	With cover, no switch	.59	.53	.42	.32
216119CH	SBH-321-1AS	5	2-AA	Wires	Single	With cover and switch	.79	.71	.64	.54
216127CH	BH-322-1B	4	2-AA	Snaps	Dual		.59	.53	.42	.32
216135CH	BH-331-A	6	3-AA	Snaps	Single		.89	.79	.72	.65
216143CH	SBH-331-AS	7	3-AA	Wires	Single	With cover and switch	.99	.79	.71	.53
216151CH	BH-341-2A	8	4-AA	Wires	Single		.99	.89	.84	.79
105857CH	*	12	4-AA	Wires	Single	Wires with connector	.89	.80	.72	.60
216160CH	BH-342-A	9	4-AA	Wires	Dual		<del>\$.59</del>	.35	.28	.23
216178CH	BH-343-1A	10	4-AA	Wires	Dual		.65	.55	.47	.35
216186CH	SBH-341-1AS	13	4-AA	Wires	Single	With cover and switch	1.09	.89	.85	.75
216194CH	BH-341-2B	8	4-AA	Snaps	Single		<del>\$.65</del>	.35	.31	.29
216207CH	BH-343-1B	10	4-AA	Snaps	Dual		<del>\$.89</del>	.45	.38	.35
216215CH	BH-363-A	15	6-AA	Wires	Dual		<del>\$.85</del>	.75	.68	.61
216223CH	BH-364-A	14	6-AA	Wires	Single		.95	.85	.69	.51
216231CH	BH-363-B	15	6-AA	Snaps	Dual		.99	.75	.69	.65
216240CH	BH-383-A	17	8-AA	Wires	Dual		1.09	.98	.78	.59
216258CH	BH-382-B	16	8-AA	Snaps	Dual		1.19	1.07	.86	.64
216266CH	BH-383-B	17	8-AA	Snaps	Dual		1.19	.99	.86	.64
216274CH	BH-411-1A	1	1-AAA	Wires	Single		<del>\$.39</del>	.29	.18	.15
216282CH	BH-421-1A	3	2-AAA	Wires	Single		.69	.59	.54	.49
216291CH	SBH-421-AS	5	2-AAA	Wires	Single	With cover and switch	<del>\$.69</del>	.33	.30	.27
216303CH	BH-431-1A	6	3-AAA	Wires	Single		<del>\$.79</del>	.39	.35	.32
216311CH	SBH-431-1AS	7	3-AAA	Wires	Single	With cover and switch	.79	.69	.59	.49
216320CH	BH-441-1A	8	4-AAA	Wires	Single		.89	.80	.64	.48
216338CH	SBH-441-AS	13	4-AAA	Wires	Single	With cover and switch	1.25	1.12	.90	.68
216346CH	BH-211-A	1	1-C	Wires	Single		.55	.50	.40	.30
216354CH	BH-221-A	3	2-C	Wires	Single		1.09	.98	.78	.59
216362CH	BH-242-1A	11	4-C	Wires	Single		1.39	1.29	1.09	.99
216371CH	BH-111-1A	1	1-D	Wires	Single		.69	.62	.50	.37
216389CH	BH-121-1A	3	2-D	Wires	Single		.89	.80	.72	.60
216397CH	BH-121-1B	3	2-D	Snaps	Single		<del>\$.64</del>	.49	.46	.42
216400CH	BH-142-A	11	4-D	Wires	Single		1.19	1.07	.96	.80
216418CH	BH-143-1A	8	4-D	Wires	Single		1.15	.89	.81	.74
216426CH	BH-9V-A	2	1-9V	Wires	Single		.79	.69	.64	.59
216434CH	BH-511-1A	1	1-N	Wires	Single		.59	.53	.42	.32
38535CH	2S2032	18	1-CR2032	PC Mount	Coin Cell		.59	.53	.44	.31
38543CH	2S2325	18	1-CR2354 or 2-CR2325	PC Mount	Coin Cell		.99	.89	.71	.53

### Other Manufacturers — Limited Great Deals

237315CH	1029	19	1-2/3AA	PC Mount	Single		\$.75	\$.69	\$.59	\$.55
236996CH	103	18	1-CR2032	PC Mount	Coin Cell		.95	.86	.68	.51

\* Battery holder used in many personal computers

### Compact Battery Tester

**SALE**

Simply lift the swivel arm of this battery tester and place your battery between the contacts and it will provide you a voltage measurement of your batteries. Tests AAA, AA, C, D, 9V, and button cell batteries.



Part No.	Description	1	5
239556CH	Compact battery tester .....	<del>\$4.99</del>	\$4.49 \$3.99

### "9-Volt" Battery Snaps and Clip

- Use with standard "9 volt" batteries
- Fully insulated; contacts are nickel-plated brass
- Leads are color-coded, stripped and pre-tinned
- Snap: male outer dia. = 0.225" • Female inner dia.: 0.215"



Fig. 1



Fig. 2

\* 10 piece minimum

Part No.	Fig.	Description	Dimensions (in.)			Pricing			
			L	W	H	1	10	100	1000
11279CH	1	3", 26 AWG, 6 prong battery snap	1.0	.50	—	\$.25	\$.22	\$.19	\$.16
105793CH	2	Battery holder clip	.63	.71	1.2	.28	.23	.16	.14
109153CH	3	6", 26 AWG, 6 prong battery snap	1.0	.50	—	*	.17	.15	.135
101469CH	3	10", 26 AWG, 6 prong battery snap	1.0	.50	—	.29	.25	.21	.14
216451CH	4	6", 26 AWG, 6 prong battery snap	1.0	.50	—	.34	.30	.20	.18

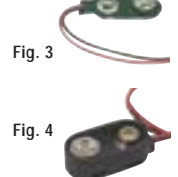


Fig. 3

Fig. 4

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## Serial LCD Displays

Scott Edwards Electronics, Inc.

• For detailed specification sheets, please visit [www.Jameco.com](http://www.Jameco.com). • One year warranty

### Scott Edwards ILM-216L

• 16 x 2 characters • 2.8" x 1.0" display



150990CH

### Matrix Orbital LK162-12

• 16 x 2 characters • 2.5" x 0.7" display



174166CH

### Scott Edwards BPI-216N

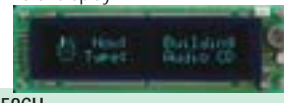
• 16 x 2 characters • 2.8" x 1.0" display



133129CH

### Matrix Orbital VK202-25

• 20 x 2 characters w/ keypad interface • 2.8" x 0.5" display



281359CH

### Matrix Orbital LCD2041

• 20 x 4 characters • 3.0" x 1.0" display



150957CH

### Matrix Orbital LK204-25

• 20 x 4 characters w/ keypad interface • 3.0" x 1.0" display



157323CH

### Matrix Orbital GLK12232-25-SM

• 20 x 4 characters with graphics • 2.4" x 0.7" display



281391CH

### Matrix Orbital GLK12232-25-WBL

• 20 x 4 characters with graphics • 3.3" x 1.4" display



281404CH

### Matrix Orbital VFD2041

• 20 x 4 characters • 3.0" x 1.0" display



303554CH

### Scott Edwards SGX-120L

• 20 x 4 characters with graphics • 2.6" x 1.1" display



158166CH

### Matrix Orbital VK204-25

• 20 x 4 characters • 2.8" x 0.8" display



281375CH

### Scott Edwards BPP-440L

• 40 x 4 characters • 6.7" x 1.7" display



136485CH

### Matrix Orbital GLC24064

• 40 x 8 characters with graphics • 5.2" x 1.5" display



174182CH

### Matrix Orbital GLK24064-25

• 40 x 8 characters with graphics • 5.0" x 1.3" display



281412CH

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Part No.	Manufacturer	Product No.	Characters x Lines	Serial Input (bps)	Input Voltage	Backlight	Notes*	Module Size (W"xH"xD")	Display Size (W"xH")	Pricing		
										1	10	25
150990CH	Scott Edwards	ILM-216L	16 x 2	1200 - 9600	4.8V-5.5V @ 5mA	Y	1,2,5	3.2x2.0x0.5	2.8 x 1.0	\$48.95	\$44.09	\$39.65
174166CH	Matrix Orbital	LK162-12	16 x 2	1200 - 19,200	5.0V @ 9mA	Y	1,3,4,6	3.2x1.5x0.8	2.5 x 0.7	51.99	49.99	47.99
133129CH	Scott Edwards	BPI-216N	16 x 2	2400 or 9600	4.8V - 5.5V @ 3mA	N	1,2,11	3.1x1.4x0.7	2.8 x 1.0	59.95	53.99	48.99
281359CH	Matrix Orbital	VK202-25	20 x 2 w/ keypad interface	1200 - 19,200	5.0V @ 130mA	Y	1,7,10	4.6x1.5x0.9	2.8 x 0.5	88.99	87.97	84.47
150957CH	Matrix Orbital	LCD2041	20 x 4	1200 - 19,200	5.0V @ 10mA	Y	1,3,4,6	3.9x2.4x0.7	3.0 x 1.0	57.99	55.99	54.99
157323CH	Matrix Orbital	LK204-25	20 x 4 w/ keypad interface	1200 - 19,200	5.0V @ 16mA	Y	1,3,4,6	3.7x2.4x1.1	3.0 x 1.0	77.99	75.99	73.99
281391CH	Matrix Orbital	GLK12232-25-SM	20 x 4 w/ graphics	9600 - 115,000	5.0V @ 250mA	Y	1,8	3.4x1.4x 0.5	2.4 x 0.7	68.99	67.99	65.49
281404CH	Matrix Orbital	GLK12232-25-WBL	20 x 4 w/ graphics	9600 - 115,000	5.0V @ 20mA	Y	1,8	3.9x2.4x0.4	3.3 x 1.4	74.99	73.99	71.19
303554CH	Matrix Orbital	VFD2041	20 x 4	1200 - 19,200	5.0V @ 20mA	Y	1,4,10	3.9x2.4x1.1	3.0 x 1.0	105.99	102.99	99.99
158166CH	Scott Edwards	SGX-120L	20 x 4 w/ graphics	2400 or 9600	9V bat. or 5.0V @ 45mA	Y	1,2,5	3.1x1.9x0.8	2.6 x 1.1	119.95	107.99	103.00
281375CH	Matrix Orbital	VK204-25	20 x 4	1200 - 19,200	5.0V @ 220mA	Y	1,4,10	3.8x2.4x1.0	2.8 x 0.8	114.49	113.50	108.73
136485CH	Scott Edwards	BPP-440L	40 x 4	1200 - 9600	5.0V @ 10mA	Y	1,2,11	7.5x2.2x0.9	6.7 x 1.7	149.95	142.45	136.49
174182CH	Matrix Orbital	GLC24064	40 x 8 w/ graphics	1200 - 19,200	5.0V @ 31mA	Y	1,3,6	7.1x2.6x0.7	5.2 x 1.5	165.99	161.69	157.49
281412CH	Matrix Orbital	GLK24064-25	40 x 8 w/ graphics	9600 - 115,000	5.0V @ 20mA	Y	1,9	7.1x2.6x1.1	5.0 x 1.3	192.99	192.00	183.30

\*1. For power supply, recommend P/N 164101CH, pg 174.

2. Includes instruction codes for character generation, cursor control, printing, etc. (Examples for Stamps in PBASIC included.)

3. Manual and software included

4. Connect 16 modules using the same two wire interface

5. EEPROM stores text font, settings, and text screen

6. Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature.

7. Connect 127 modules on the same 2-wire interface

8. 122 x 32 pixel graphics display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

9. 240 x 64 pixel graphic display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

10. Built-in font provision for up to 8-user defined characters, software controlled brightness, use up to a 25-key keypad with one 10-key buffer, 6 general purpose outputs, horizontal or vertical bar graphs

11. LCD Serial Backpack\* accepts RS232, CMOS or TTL signal.



## Serial LCD Interface Module

**SALE**

For Parallel LCD Displays with Hitachi 44780 Chipset

- Supports 1 x 8 thru 4 x 20 LCD display formats
- Provides word wrap, control character processing for display blanking cursor blanking, up-down-left-right cursor controls
- Compatible with P/N 171715CH, pg 189

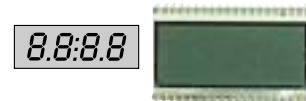


Part No.	Product No.	Size (L x W)	1	10	25
157981CH	1616B-05A-100	1.5" x 1.0" .....	<del>\$49.19</del> \$17.99	\$16.34	\$14.85

Blue Part No. = Limited Quantity Available

## VL 0.5" High 4-Digit Field Effect LCD Display

- Compatible with socket P/N 78641CH (2), pg 110
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Digital multimeters, thermometers, pressure gauges, timers, frequency counters, and clocks (12 or 24 hour format)



Part No.	Product No.	Size (W x H x D)	1	10	25
17110CH	402-DP-RC-S	2.0" x 1.2" x 0.1" .....	\$14.95	\$13.49	\$12.15



# Parallel LCD Displays and Panel Meters

Quantity SAVE

SALE

## Parallel LCD Displays



• For detailed specification sheets, please visit [www.Jameco.com](http://www.Jameco.com).

• 90-day Jameco warranty

### Ampire AC-162A

• 16 x 2 characters • 2.5" x 0.7" display



171715CH

### PicVue PVC160204A

• 16 x 2 characters • 2.6" x 0.7" display



277384CH

### PicVue PVC160205

• 16 x 2 characters • 3.9" x 0.9" display



277392CH

### Optrex DCM16204N-LR-B

• 16 x 2 characters • 3.9" x 0.9" display



320098CH

### Optrex DM16433

• 16 x 4 characters  
• 2.4" x 1.0" display



210761CH

### Samsung 9936

• 20 x 1 characters • 6.5" x 1.3" display



206615CH

### Ampire AC-202A

• 20 x 2 characters • 3.3" x 0.7" display



171723CH

### Optrex DM20261ANB-2Y-20

• 20 x 2 characters • 3.3" x 0.7" display



320071CH

### PicVue PVC200401

• 20 x 4 characters • 3.0" x 1.0" display



277376CH

### Solomon LM1200SGR

• 24 x 2 characters • 3.7" x 0.7" display



320101CH

### Solomon LM1030SGR

• 40 x 2 characters • 6.0" x 0.6" display



320039CH

### Ocular OM4021-WGS-01

• 40 x 2 characters • 6.0" x 0.6" display



277325CH

### Optrex 20-20191-2

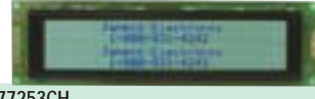
• 40 x 2 characters • 5.8" x 0.5" display



215159CH

### Emerging Display EW40420GLY

• 40 x 4 characters • 5.9" x 1.2" display



277253CH

### PicVue PG121202A

• 128 x 128 pixels  
• 2.7" x 2.7" display



277333CH

### PicVue PVG240602A

• 240 x 64 pixels • 5.2" x 1.5" display



277350CH

Part No.	Manufacturer	Product No.	Characters x Lines	Character Font	Input Data	Input Voltage	Backlight	Notes*	Module Size (W"xH"xD")	Display Size (W"xH")	Pricing		
											1	10	25
171715CH	Ampire	AC-162A	16 x 2	5 x 8	8-bit	5.5V@1.5mA	Y	3, 5	3.4x1.2x0.5	2.5 x 0.7	\$13.99	\$13.35	\$12.65
277384CH	PicVue	PVC160204A	16 x 2	5 x 7	8-bit	5VDC@1.6mA	Y	—	3.3x1.4x0.5	2.6 x 0.7	13.99	11.99	9.99
277392CH	PicVue	PVC160205	16 x 2	5 x 8	4-bit or 8-bit	5.2V@1.2mA	Y	—	4.8x1.7x0.5	3.9 x 0.9	19.95	18.95	17.99
320098CH	Optrex	DCM16204N-LR-B	16 x 2	5 x 8	4-bit or 8-bit	5.0V@3.0mA	Y	5	3.2x1.6x0.6	2.4 x 0.6	14.55	13.09	11.39
210761CH	Optrex	DM16433	16 x 4	5 x 8	4-bit or 8-bit	6.5V@2.2mA	N	1, 5	3.4x2.4x0.3	2.4 x 1.0	22.95	19.95	18.69
206615CH	Samsung	9936	20 x 1	5 x 7	4-bit or 8-bit	5.5V@3.0mA	N	2	7.2x1.6x0.4	6.5 x 1.3	19.99	16.99	12.75
171723CH	Ampire	AC-202A	20 x 2	5 x 8	8-bit	5.0V@1.7mA	Y	3, 5	4.6x1.5x0.4	3.3 x 0.7	24.95	22.49	20.25
320071CH	Optrex	DM20261ANB-2Y-20	20 x 2	5 x 8	4-bit or 8-bit	5.0V@3.0mA	Y	5	4.6x1.5x0.6	3.3 x 0.7	19.89	17.89	15.59
277376CH	PicVue	PVC200401	20 x 4	5 x 8	8-bit	5.0V@1.6mA	N	—	3.9x2.4x0.4	3.0 x 1.0	23.29	20.19	16.85
320101CH	Solomon	LM1200SGR	24 x 2	5 x 7	8-bit	5.0V@3.0mA	N	5	4.6x1.4x0.4	3.7 x 0.7	15.59	13.35	11.99
320039CH	Solomon	LM1030SGR	40 x 2	5 x 7	8-bit	5.0V@3.0mA	N	5	7.2x1.2x0.3	6.0 x 0.6	22.15	19.25	18.29
277325CH	Ocular	OM4021-WGS-01	40 x 2	5 x 8	8-bit	5.0V@2.5mA	Y	5	7.2x1.3x0.6	6.0 x 0.6	24.95	21.25	15.95
215159CH	Optrex	20-20191-2	40 x 2	5 x 8	8-bit	5.5V@5mA	Y	4	7.2x1.4x0.4	5.8 x 0.5	29.99	25.49	18.95
277253CH	Emerging Display	EW40420GLY	40 x 4	5 x 7	8-bit	4.0V@10mA	Y	—	7.5x2.1x0.6	5.9 x 1.2	42.39	38.79	34.95
277333CH	PicVue	PG121202A	128 x 128 pixels	128 x 128	8-bit	5.0V@6.0mA	N	6	3.5x3.5x0.4	2.7 x 2.7	45.29	41.25	37.15
277350CH	PicVue	PVG240602A	240 x 64 pixels	240 x 64	8-bit	5.0V@6.0mA	N	6	7.1x2.6x0.4	5.2 x 1.5	61.95	56.75	46.85

\*1. Control LSI HD44780 or equivalent and column driver MSM5259 or equivalent; 2. Built-in controller HD44780; 3. Controller KS0066U or equivalent; 4. Column driver: KS0063B; 5. For power supply: recommend P/N 164101CH, pg 174); 6. Dot Graphic LCD display

## 0.6" High 3½- & 4½-Digit LCD Digital Panel Meters

- Input Ranges: 200mV, 20V, 200V, 500V
- Accuracy: ±0.5%
- Supply voltage: 8-12VDC (recommend 9V battery P/N 151095CH, pg 183)
- Input impedance: >100MΩ
- Automatic polarity indication

146835CH: Backlit display Includes: Bezel



Part No.	Product No.	Digits	1	10	25
108388CH	PM-428	3½	\$12.95	\$11.95	\$10.95
175951CH	PM-128	3½	12.95	11.95	10.95
146835CH	PM-188BL	3½	19.95	17.99	16.19
123140CH	PM-328	4½	27.95	24.95	22.49



## Analog Panel Meters

- Includes mounting hardware
- 316507CH: includes current shunt

- Size: A: 2.4"W x 1.8"H x 1.3"D
- B: 2.8"W x 2.4"H x 1.4"D

Part No.	Product No.	Measurement Range	Size	1	4
316603CH	AVM6015	0 – 15VDC	A	\$9.29	\$7.85
316671CH	AVM7015	0 – 15VDC	B	8.79	7.49
316638CH	AVM6030	0 – 30VDC	A	8.79	7.49
316654CH	AVM7030	0 – 30VDC	B	8.79	7.49
316718CH	AVM60150	0 – 150VAC	A	8.79	7.49
316785CH	AVM60300	0 – 300VAC	A	8.79	7.49
315301CH	AIM60005	0 – 50uA	A	9.29	7.85
316523CH	AIM6050	0 – 50mA	A	8.79	7.49
316486CH	AIM60100	0 – 100mA	A	8.99	7.65
316558CH	AIM60500	0 – 500mA	A	8.99	7.65
316566CH	AIM60500	0 – 5A	A	8.79	7.49
316582CH	AIM705000	0 – 5A	B	8.79	7.49
316494CH	AIM6010A	0 – 10A	A	8.79	7.49
316507CH	AIM6030A	0 – 30A	A	8.79	7.49



316603CH



316523CH

Color Code Legend  
New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242

# Rack Mount Enclosures and Accessories

Color Code Legend			
New	Sale	Lower\$	QtySave



## Mini-Max Wall Mount Enclosures\*

APW's Mini-Max Wall Mount Enclosures are the perfect storage solution for today's demanding, space-constrained applications. Convenient and flexible, these 19" EIA rack-mount enclosures allow you to manage and secure critical network wiring, hubs, concentrators, routers, patch panels, and audio/video equipment in a minimum amount of space. Offered in a variety of sizes with door and ventilation options, Mini-Max delivers the perfect combination of form and functionality for virtually any application.

- Available in 3 heights (12U, 20U, and 26U), 1 width (21.50", 19" rack-mount) and 2 depths (14" and 20")
- Dual-tapped and field-reversible 10-32 and 12-24 mounting rails (1 pair per cabinet)
- Vented

**NEW**



Part Number	Product Number	Door Type	Vertical Panel Opening	Overall Height	Usable Depth	Overall Depth	1	5
350196CH	WCF192114PLM	Plexiglas	21.00"	23.13"	14.00"	20.16"	\$457.59	\$434.75
350199CH	WCF192114SLM	Solid metal	21.00"	23.13"	14.00"	20.16"	408.59	388.15
350202CH	WCF192120PLM	Plexiglas	21.00"	23.13"	20.00"	26.16"	503.35	478.19
350205CH	WCF193520PLM	Plexiglas	35.00"	37.13"	20.00"	26.16"	624.49	593.25
350208CH	WCF194520PLM	Plexiglas	45.50"	48.13"	20.00"	26.16"	745.95	708.65



## Swing Out™ Wall Mount Rack for Mini-Max Wall Mount Enclosures\*

Convenient and flexible Swing Out™ racks come with a variety of standard features, including integrated strain relief and cable management; quick release hinges that allow the rack to swing open from either left or right; and exclusive 3" deep rack style rails tapped 12-24 on the front and rear for 19" EIA rack-mount equipment.

- Overall height: 18.0"
- External width: 20.75"
- Color: black

**NEW**

Part No.	Product No.	Vertical Panel Opening	Rack Units	External Height	1	5
350223CH	SO2118M	21.00"	12U	23.92"	\$136.05	\$129.25
350226CH	SO3518M	35.00"	20U	37.92"	145.69	138.39
350229CH	SO4318M	43.75"	25U	46.67"	153.15	145.49

## Cabinet Mounting Plate for 19" Cabinet

- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H
- Color: beige



Part No.	Description	1	10
149500CH	Cabinet mount plate	\$39.95	\$35.95

## 19" Rack Mount Drawer with Keyboard and Trackball

- Occupies a single unit (1U) rack space
- PS/2 connector for keyboard and trackball
- Color: gray
- Weight: 18 lbs.
- Size: 19"W x 13"D x 2.8"H



**Includes:** Wrist pads, module, PS/2 to 5-pin DIN and PS/2 to 9-pin adapters, and software

Part No.	Description	1	10
220644CH	Rack mount KB drawer	\$249.99	\$234.99



## Universal Wall Mounting Rail Kits for Mini-Max Wall Mount Enclosures\*

- Comes in pairs
- Color: black

**NEW**

Part No.	Product No.	VPS	Rack Units	1	5
350214CH	WCRK21M	21.00"	12U	\$33.49	\$31.79
350217CH	WCRK35M	35.00"	20U	41.19	39.15
350220CH	WCRK45M	45.50"	26U	49.85	47.35



## Cantilevered Shelves\*

**Front mount only**

- 19" rack mountable
- 50 lb. capacity
- PS: 3.50"
- 2U rack unit
- Color: black



**NEW**

Part No.	Product No.	Type	Depth	1	5
350079CH	CS1912S	Solid	12.50"	\$38.95	\$36.99
350082CH	CS1914S	Solid	14.50"	44.65	42.39
350085CH	CS1919S	Solid	19.00"	52.25	49.65
350088CH	CS1912V	Vented	12.50"	49.39	46.95
350091CH	CS1914V	Vented	14.40"	56.05	53.25
350094CH	CS1919V	Vented	19.00"	59.85	56.59

## 19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.

- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Front panel: 0.12" thick
- Black front panel
- Top, bottom, sides durable 0.035" steel
- All enclosures have handles except P/N 132812CH



**Includes:** Mounting screws

Part No.	Dimensions (In.)			Weight (lbs.)	Pricing	
	H1	H2	D		1	10
132812CH	1.73	1.25	9.75	6.2	\$39.95	\$35.99
132821CH	3.46	3.0	9.75	7.9	47.95	43.49
132839CH	3.46	2.88	11.75	9.1	53.95	48.59
132847CH	5.22	4.75	11.75	10.6	63.95	55.99
132855CH	5.22	4.75	13.50	11.8	73.95	66.95
132863CH	8.56	8.0	13.50	15.4	94.95	84.95

## 19" Rack Mount CAT 5 Patch Panels

Our CAT 5 patch panels feature 110D punch blocks that are compatible with KRONE or 110D tool. UL and CUL listed and certified, CAT 5 certified and can be used with T568 A/B installations. Blocks are color coded for T568 color-coding, and easy wire management.



Part No.	Description	1	10
208768CH	12-port patch panel	\$28.99	\$27.55
208784CH	24-port patch panel	42.75	39.95

## Rack Mount Card Cage

- For 19" rack mounts
- 24 slots
- Weight: 6.3 lbs.
- Fits card size: 6.5"L x 5.5"W
- Size: 6.5"L x 17.3"W x 6.1"D

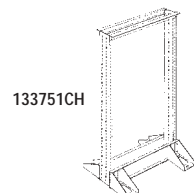


Part No.	Description	1	10	25
172099CH	Rackmount card cage	\$7.95	\$7.15	\$5.55

## Relay Rack & Rack Panels

**Rack:**

- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels
- 16 gauge CRS base
- 1/8" aluminum side rails
- Size (at base): 19.8"W x 15.3"D x 84"H
- Dimensional weight: 70 lbs.



**19" Wide Panel:**

- 10-gauge black aluminum

**Rack screw:**

- 10/32 screw; 5/8" phillips head (50 ea.)

133751CH

Part No.	Description	Height	1	10
133751CH	Relay rack	84"	\$159.95	\$144.95
133276CH	Rack panel (1U)	1.75"	\$9.45	8.19
229489CH	Rack panel (2U)	3.50"	10.35	9.39
229500CH	Rack panel (4U)	7.00"	14.55	13.55
229446CH	Rack screw (50 ea.)	—	8.25	7.45

\*To minimize shipping costs, all APW products ship direct from the manufacturer. Additionally, Jameco can offer the special shipping rate of 10% of total APW product sales for all APW products.

For Additional Rack Mount Accessories see page 265.

# Rack Mount Enclosures and Accessories



## Wall Mount Patch Panel Brackets\*

When minimal space is required, APW's heavy-duty 14 gauge steel wall mount patch panel brackets are a great alternative to full size racks. Designed for 19"



**NEW**

EIA equipment, the brackets' hinged design allows convenient wall mounting of patch panels and small equipment while saving valuable floor space. Select from a variety of sizes to best suit your needs.

- Available in 4 heights (1U, 2U, 3U, 4U), 1 width (19.0"), and 4 depths (4", 6", 8", and 12")
- Universal inserts provide the option to use either 10-32 or 12-24 mounting screws

Part No.	Product No.	External Height	Ext./Overall Depth	1	5
350232CH	WPB190106M	1.75", 1U	6.0"	\$17.75	\$16.89
350235CH	WPB190304M	3.50", 2U	4.0"	... 22.49	21.39
350238CH	WPB190306M	3.50", 2U	6.0"	... 22.99	21.85
350241CH	WPB190308M	3.50", 2U	8.0"	... 23.15	21.99
350244CH	WPB190312M	3.50", 2U	12.0"	... 24.89	23.65
350247CH	WPB190504M	5.25", 3U	4.0"	... 24.69	23.45
350250CH	WPB190506M	5.25", 3U	6.0"	... 25.65	24.35
350253CH	WPB190508M	5.25", 3U	8.0"	... 25.89	24.59
350256CH	WPB190512M	5.25", 3U	12.0"	... 27.79	26.39
350259CH	WPB190704M	7.00", 4U	4.0"	... 27.09	25.75
350262CH	WPB190706M	7.00", 4U	6.0"	... 28.05	26.65
350265CH	WPB190708M	7.00", 4U	8.0"	... 28.25	26.85
350268CH	WPB190712M	7.00", 4U	12.0"	... 30.49	28.99



## Modular Networking Frames\*

APW's modular networking frames offer an economical solution to your rack-mount storage needs at a fraction of the cost of a fully enclosed cabinet. Designed with APW's renowned quality and stability, these racks are ideal for mounting electric test equipment, patch panels, Datacom and telecom equipment, and other cabling and rack-mount peripherals.

- Heavy-duty aluminum extruded upright channels, and top & base angles are packaged in an easily assembled unit
- 12-24 tapped 19" EIA mounting holes
- Overall width: 20.18"
- UL listed
- Offered in 47" and 84" heights only



**NEW**

Part No.	Product No.	Vertical Opening	Rack Units	1	5
350190CH	MNFT1942DM	42.00"	24U	\$127.75	\$121.35
350193CH	MNFT1978DM	78.75"	45U	... 159.25	151.25

\*To minimize shipping costs, all APW products ship direct from the manufacturer. Additionally, Jameco can offer the special shipping rate of 10% of total APW product sales for all APW products.



## Pioneer Quicksilver Rack Mount Enclosure Kits\*

Just plug it in and load it up! It's that easy with the Pioneer Quicksilver, the industry's first enclosure clustering solution. Quicksilver provides easy installation and reconfiguration of multiple 19" rack mount equipment as well as hubs, concentrators, switches, and other hardware, all within one enclosure. Available in 3 heights - 25U, 40U, and 45U. Use one simple easy-to-order item number to order your fully pre-configured enclosure system. All kits include base with leveler feet, top panel with exhaust fans and cable access (Lexan front door and vented rear door with handles and key locks), 2 pairs of 10-32 tapped 19" cable management mounting rails (front rails include cable management rings), over head interior light, six outlet power strip, one fixed shelf, document storage pocket, and mounting hardware.

- Load capacity up to 1,500 lbs. or 2,000 lbs. when ganged together
- Easy access from the front, rear, and sides
- Fully welded steel construction
- Compatible with all standard APW Pioneer options and accessories



Initial Unit



Add-on Unit

**NEW**

### Initial Unit

Part Number	Product Number	Vertical Panel Opening	Overall Height	Rack Units	Overall Depth	Side Panels	1	5
350049CH	PDC1904330KITM	43.75"	52.50"	25U	34.65"	Vented	\$1,876.19	\$1,782.39
350052CH	PDC1907030KITM	70.00"	78.75"	40U	34.65"	Vented	... 1,975.05	1,876.29
350055CH	PDC1907830KITM	78.75"	87.50"	45U	34.65"	Vented	... 2,064.29	1,961.09

### Add-On Unit

Part Number	Product Number	Vertical Panel Opening	Overall Height	Rack Units	Overall Depth	Side Panels	1	5
350058CH	PDC1904330KITNSM	43.75"	52.50"	25U	34.65"	None	.. \$1,568.45	\$1,490.05
350061CH	PDC1907030KITNSM	70.00"	78.75"	40U	34.65"	None	.... 1,639.65	1,557.65
350064CH	PDC1907830KITNSM	78.75"	87.50"	45U	34/65"	None	.... 1,695.69	1,610.89



## Pioneer Pre-Configured Rack Mount Enclosures\*

APW's series of Pioneer Datacom Kits enables you to order pre-configured enclosures with one easy-to-order item number. Available in four different kit combinations to best suit your needs, each series offers an initial unit and a corresponding add-on unit for multi-bay configurations. Pioneer Datacom kits provide 42U of vertical 19" rackmount space and come in depths of 36" and 42". The kits include a base with leveler feet, top panels that include cable access, doors with handles and key locks, clip nuts, cage nuts, and mounting screws.

- Four different kits to meet your requirements - all with two pairs of 0.375" square hole adjustable mounting rails
- 24" wide footprint
- Fully welded steel construction
- Load capacity of up to 1,500 lbs. or 2,000 lbs. when ganged together
- Multi-vendor server compatibility
- Easy access to equipment from front, rear, and sides
- Compatible with all standard APW Pioneer options and accessories



Monitor Not Included

**NEW**

### Initial Unit kits

Part No.	Product No.	Frame Size (D')	Top Panel	Front Door	Rear Door	Side Panels	1	5
350001CH	PK124MS7436	36	Perforated	Lexan	Perforated	Solid	.... \$1,515.25	\$1,439.49
350004CH	PK124MS7442	42	Perforated	Lexan	Perforated	Solid	..... 1,895.25	1,799.99
350007CH	PK224MS7436	36	Fan	Lexan	Perforated	Solid	..... 1,799.99	1,710.25
350010CH	PK224MS7442	42	Fan	Lexan	Perforated	Solid	..... 2,202.09	2,091.99
350013CH	PK324MS7436	36	Perforated	Perforated	Perforated	Solid	..... 1,657.89	1,574.99
350016CH	PK242MS7442	42	Perforated	Perforated	Perforated	Solid	..... 1,715.69	1,629.89
350019CH	PK424MS7436	36	Perforated	Perforated	Perforated	Perforated	.. 1,693.99	1,609.29
350022CH	PK424MS7442	42	Perforated	Perforated	Perforated	Perforated	.. 1,736.39	1,649.59

### Add-On Units (no side panels)

Part No.	Product No.	Frame Size (D')	Top Panel	Front Door	Rear Door	Side Panels	1	5
350025CH	PA124MS7436	36	Perforated	Lexan	Perforated	None	.... \$1,189.99	\$1,149.59
350028CH	PA124MS7442	42	Perforated	Lexan	Perforated	None	..... 1,526.15	1,449.85
350031CH	PA224MS7436	36	Fan	Lexan	Perforated	None	..... 1,794.15	1,704.45
350034CH	PA224MS7442	42	Fan	Lexan	Perforated	None	..... 1,832.09	1,740.49
350037CH	PA324MS7436	36	Perforated	Perforated	Perforated	None	..... 1,308.65	1,243.19
350040CH	PA324MS7442	42	Perforated	Perforated	Perforated	None	..... 1,346.15	1,278.85
350043CH	PA424MS7436	36	Perforated	Perforated	Perforated	None	..... 1,308.65	1,243.19
350046CH	PA424MS7442	42	Perforated	Perforated	Perforated	None	..... 1,346.15	1,278.85

Color Code Legend

New Sale Lower\$ QtySale

Order 24/7 Toll Free 1-800-831-4242

191





NEW

Processor-Based Motherboards<sup>†</sup>

345130CH



345092CH



345156CH



285085CH



285114CH



285157CH

Jameco Part No.	Mfr.	Model No.	Board Style	Processor Support	FSB (MHz)	Chipset	On-Board Graphics	Memory Type	On-Board Audio	USB	HDD Support	On-Board LAN	Wt. (lbs.)	Warranty (Yrs.)	Pricing	
															1	10
345050CH	Giga-Byte	GA-8S648FX-RZ♣	ATX	P4	800/533/400	661FX/963L	No	DDR400/333/266	Yes	2.0	ATA	100Mb	2.6	3	\$76.55	\$72.85
345130CH	Giga-Byte	GA-8IPE1000-G♣	ATX	P4	800/533/400	i865PE	No	DDR400/333/266	Yes	2.0	SATA	1000Mb	3.3	3	131.55	106.75
345164CH	Giga-Byte	GA-8IPE1000PRO-G♣	ATX	P4	800/533/400	i865PE	No	DDR400/333/266	Yes	2.0	SATA	1000Mb	3.6	3	131.55	124.95
345560CH	Intel	BOXD915GAVL♣	ATX	P4	800/533	i915G	Yes	DDR333/400	Yes	2.0	SATA	100Mb	2.9	3	149.45	141.99
345578CH	Intel	BOXD915PBL♣	ATX	P4	800/533	i915P	No	DDR2 533/400	Yes	2.0	SATA	100Mb	4.7	3	198.99	196.25
345586CH	Intel	BOXD915PCYL♣	ATX	P4	800/533	i915P	No	DDR2 533/400	Yes	2.0	SATA	100Mb	2.9	3	157.45	149.55
285131CH	Intel	S875WP1♣	ATX	P4	533	i875P	Yes	DDR400/333/266	No	2.0	SATA	100Mb	2.7	3	256.35	245.99
285093CH	Intel	BOXD865PERLL♣	ATX	P4/CEL	800/533/400	i865PE	No	DDR400/333/266	Yes	2.0	ATA	100Mb	3.1	3	142.39	128.15
285077CH	Intel	BOXD865GBFL♣	ATX	P4/CEL	800/533/400	i865G	Yes	DDR400/333/266	Yes	2.0	SATA	100Mb	2.8	3	131.05	123.49
345543CH	Intel	BOXD865PERLX♣	ATX	P4/Celeron	800/533/400	i865PE	No	DDR400-333/266	Yes	2.0	SATA	100Mb	2.6	3	118.85	112.89
285106CH	Intel	BOXD875PBZL♣	ATX	P4/CEL	800/533	i875P	No	DDR400/333	No	2.0	SATA	1000Mb	2.9	3	205.89	185.29
345092CH	Giga-Byte	GA-7N400-L♣	ATX	Athlon XP*	400/333/266/200	nForce2 400	No	DDR400/333/266	Yes	2.0	ATA	100Mb	3.0	3	90.25	85.74
345121CH	Giga-Byte	GA-7VT600-1394♣	ATX	Athlon XP*	400/333/266/200	KT600	No	PC3200/2700/2100	Yes	2.0	SATA	100Mb	2.8	3	103.69	98.49
345148CH	Giga-Byte	GA-8TRS350MT♣	µATX	P4	800/533/400	9100 Pro IGP	Yes	DDR400/333/266	Yes	2.0	SATA	100Mb	4.0	3	113.95	108.25
345156CH	Giga-Byte	GA-8IG1000MK-B♣	µATX	P4	800/533/400	i865G	No	DDR400/333/266	Yes	2.0	SATA	100Mb	3.8	3	129.99	123.55
345172CH	Giga-Byte	GA-8I915G-MF♣	µATX	P4	800/533/400	i915G/ICH6	Yes	DDR400/333	Yes	2.0	SATA	1000Mb	3.8	3	127.65	124.99
345551CH	Intel	BOXD915GAGL♣	µATX	P4	800/533	i915G	Yes	DDR333/400	Yes	2.0	SATA	100Mb	2.7	3	141.85	136.59
345594CH	Intel	BOXD925XBCLK♣	µATX	P4	800/533	i925X	No	DDR2 533/400	Yes	2.0	SATA	1000Mb	4.5	3	248.99	247.99
345033CH	Giga-Byte	GA-8I845GVM-RZ♣	µATX	P4	533/400	i845GV	Yes	DDR333/266/200	Yes	2.0	ATA	100Mb	1.8	3	76.35	72.49
285085CH	Intel	BOXD865GLCL♣	µATX	P4/CEL	800/533	i865G	Yes	DDR400/333	Yes	2.0	SATA	100Mb	2.5	3	142.09	134.95
285114CH	Intel	BOXD845GVSRL♣	µATX	P4/CEL	533/400	i845GV	Yes	DDR 333/266	Yes	2.0	ATA	100Mb	2.1	3	79.95	74.95
345535CH	Intel	BOXD845GVFNL♣	µATX	P4/Celeron	533/400	i845GV	Yes	DDR333/266/200	Yes	2.0	ATA	100Mb	2.0	3	65.59	62.35
345041CH	Giga-Byte	GA-7VM400M-RZ♣	µATX	Athlon XP*	333/266/200	KM400	Yes	DDR333/266/200	Yes	2.0	ATA	100Mb	2.3	3	76.79	72.95
285157CH	Intel	SE7505VB2♣	eATX	2 x Xeon	533/400	iE7505	Yes	DDR200/266	No	2.0	SATA	100Mb	3.8	3	474.15	469.79

♣ These products ship from a separate warehouse and may not ship the same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

\*Also compatible w/ Athlon and Duron processors.

† For complete specs see www.Jameco.com

NEW

## DIMM and SIMM Memory Modules



## DDR Memory Modules

Part No.	Mfr.	Cross Ref. No.	Capacity	Description	Config.	Pins	1	10
354634CH		32464468-P♣	128M	SDR133	16X16	168	\$30.19	\$28.69
354642CH		32474468-P♣	256M	SDR133	16X16	168	53.19	50.55
354651CH		32484588-P♣	512M	SDR133	32X8	168	102.59	97.49
354669CH		35122468-P♣	128M	DDR PC2100	16X16	184	27.35	25.95
354677CH		35132588-P♣	256M	DDR PC2100	32X8	184	50.49	47.95
354685CH		35142588-P♣	512M	DDR PC2100	32X8	184	92.25	87.65
354693CH		35124468-PA♣	128M	DDR PC2700	16X16	184	36.09	34.29
354706CH		35134588-PB♣	256M	DDR PC2700	32X8	184	47.45	45.09
354714CH		35144588-PA♣	512M	DDR PC2700	32X8	184	97.65	92.75
354722CH		35154680-P♣	1G	DDR PC2700	64X8	184	233.99	222.45
354731CH		35125468-P♣	128M	DDR PC3200	16X16	184	37.09	35.25
354749CH		35135588-PB♣	256M	DDR PC3200	32X8	184	52.25	49.65
354757CH		35145588-PA♣	512M	DDR PC3200	32X8	184	49.65	49.65
354765CH		35155680♣	1G	DDR PC3200	64X8	184	299.99	284.99



## Kingston Memory Modules

Part No.	Mfr.	Cross Ref. No.	Capacity	Description	Config.	Pins	1	10
284998CH		KVR400X64C25/512	512MB	DDR400 ♣	64M x 64	184	\$135.69	\$127.89
285026CH		KVR266X64C25/512	512MB	DDR266 ♣	64M x 64	184	114.15	102.75
285018CH		KVR266X64C25/256	256MB	DDR266 ♣	32M x 64	184	69.95	66.45
285042CH		KVR133X64C3/256	256MB	PC133 ♣	32M x 64	168	68.29	64.89
285034CH		KVR133X64C3/128	128MB	PC133 ♣	16M x 64	168	37.95	32.45

♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

We offer free technical documents for most of the products we carry.  
Find them easily on the product spec page @ [www.Jameco.com](http://www.Jameco.com).

## Legacy Memory Modules

Part No.	Mfr.	Cross Ref. No.	Capacity	Description	Config.	Pins	1	10
148419CH		16MBX64SDRAM	128MB	10ns Syn. DRAM DIMM	16M x 64	168	\$65.95	\$59.95
148401CH		8MBX64SDRAM	64MB	10ns Syn. DRAM DIMM	8M x 64	168	28.19	26.95
148451CH		JEEED07264	64MB	60ns SIMM EDO	16M x 32	72	29.95	28.45
148398CH		4MBX64SDRAM	32MB	10ns Syn. DRAM DIMM	4M x 64	168	18.39	16.59
148460CH		8MBX36-60	32MB	60ns SIMM	8M x 36	72	39.95	36.99
148443CH		JEEED07232	32MB	60ns SIMM EDO	8M x 32	72	43.95	39.59
75184CH		P364000-XX-6	16MB	60ns SIMM	4M x 36	72	21.95	20.95
130711CH		JEEED07216	16MB	60ns SIMM EDO	4M x 32	72	12.75	11.45
75096CH		P362000-XX-6	8MB	60ns SIMM	2M x 36	72	21.55	19.39
130729CH		JEEED07208	8MB	60ns SIMM EDO	2M x 32	72	9.95	7.45
285667CH		H856U232	8MB	70ns SIMM	2M x 36	72	8.95	6.95
75133CH		P361000-XX-6	4MB	60ns SIMM	1M x 36	72	12.95	11.65
41751CH		421000A9B-70	1MB	70ns SIMM	1M x 9	30	3.95	3.45

## CPU Heat Sinks and Fans\*

Part No.	Description	Size (H" x W" x D")	Approvals	1	10
206244CH	Heat sink w/ dual fan slot (SECC 2)	5.25 x 1.95 x 1.30	CE	\$12.95	\$11.65
319951CH	Heat sink w/ fan for PIII slot 1	2.0 x 4.9 x 8.5	—	9.85	8.85
181278CH	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA	8.49	7.65
190545CH	Heat sink w/ fan for socket 370	2.45 x 2.42 x 2.10	—	13.55	12.19
319185CH	Heat sink w/ fan for socket 7 & 370	1.38 x 2.36 x 2.59	—	7.65	7.25
118092CH	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 0.86	UL/CE/TUV	4.95	4.49
129226CH	Heat sink for 486 CPU - adhesive back	1.70 x 1.63 x 0.36	—	2.95	2.65
191636CH	Heat sink w/ fan for 486 CPU w/ clip	1.85 x 1.92 x 0.72	UL/CE/TUV	5.95	5.36
174115CH	Heat sink w/ fan for 486 CPU w/ snap†	1.93 x 1.96 x 0.93	UL/CU	3.95	3.56
309340CH	Heat sink w/ fan for socket 7 (AT/ATX)	1.57 x 2.03 x 2.07	—	8.99	8.59
308742CH	Heat sink w/ fan for 586 CPU w/ snap†	0.73 x 2.05 x 1.94	—	11.39	10.25

† 14" lead wires \* See website for photos



## Boxed Processors



**NEW**

### Desktop Processors

Part No.	Product Name	Mfr. Part No.	Speed (GHz)	FSB (MHz)	Cache	Package	1	10
345471CH	Xeon <sup>†</sup>	BX80532KE2800D	2.8	533	512kB	mPGA-604	\$365.95	\$351.39
344532CH	Xeon	RN80532KC041512	2.0	400	512kB	INT3	231.25	217.29
344567CH	Xeon LV	RK80532EC025512	1.6	400	512kB	FC-PGA2p	252.69	237.49
344541CH	Xeon LV	RK80532EC041512	2.0	400	512kB	FC-PGA2p	249.99	243.45
283397CH	Pentium <sup>®</sup> 4 <sup>†*</sup>	BX80532PG2400D	2.4	800	512kB	mPGA-478	205.95	199.29
283354CH	Pentium <sup>®</sup> 4 <sup>†*</sup>	BX80546PE2800D	2.8	533	512kB	mPGA-478	247.09	234.75
283291CH	Pentium <sup>®</sup> 4 <sup>†*</sup>	BX80532PG2800E	2.8	800	1MB	mPGA-478	257.95	250.25
283320CH	Pentium <sup>®</sup> 4 <sup>†*</sup>	BX80532PG3000D	3.0	800	512kB	mPGA-478	293.55	264.19
283338CH	Pentium <sup>®</sup> 4 <sup>†*</sup>	BX80532PE3066D	3.06	533	512kB	mPGA-478	293.75	264.35
283311CH	Pentium <sup>®</sup> 4 <sup>†*</sup>	BX80532PG3200D	3.2	800	512kB	mPGA-478	367.09	329.39
283274CH	Pentium <sup>®</sup> 4 <sup>†*</sup>	BX80546PG3200E	3.2	800	1MB	mPGA-478	311.59	304.99
345498CH	Pentium 4 <sup>†</sup>	BX80547PG3200E	3.2	800	1MB	Socket T	305.99	293.99
345480CH	Pentium 4 <sup>†</sup>	BX80532PG3400FS	3.4	800	512kB	Socket T	1,353.89	1,286.25
283451CH	Celeron <sup>®</sup> †	BX80532RC2000B	2.0	400	128kB	mPGA-478	91.09	88.85
283434CH	Celeron <sup>®</sup> †	BX80532RC2400B	2.4	400	128kB	mPGA-478	99.49	96.45
283418CH	Celeron <sup>®</sup> †	BX80532RC2600B	2.6	400	128kB	mPGA-478	126.35	119.95
345519CH	Celeron D <sup>†</sup>	BX80546RE2400C	2.4	533	256kB	—	104.25	99.05

♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD. † Includes active heat sink. \* Hyper-threading technology

### Embedded Processors (see below)

Part No.	Product Name	Mfr. Part No.	Speed (GHz)	FSB (MHz)	Cache	Package	1	10
344241CH	Pentium	A8050266166	166	66	—	SPGA	\$79.45	\$62.69
344276CH	Pentium MMX	FV80503CSM66166	166	66	—	PPGA-296	77.99	61.55
344268CH	Pentium MMX	FV80503CSM66266	266	66	—	PPGA-296	80.89	71.09
344313CH	Pentium II	KC80524KX266256	266	66	256kB	BGA1	103.45	90.89
344284CH	Pentium II	KC80524KX333256	333	66	256kB	BGA1	103.45	90.89
344452CH	Pentium III	KC80526LY400256	400	100	256kB	BGA2	117.55	103.29
344444CH	Pentium III	KC80526LY500256	500	100	256kB	BGA2	133.25	117.09
344401CH	Pentium III	RB80526PY600256	600	100	256kB	FC-PGA	117.55	103.29
344436CH	Pentium III	KC80526GY800256	700	100	256kB	BGA2	107.39	100.95
344428CH	Pentium III	RB80526PY700256	700	100	256kB	FC-PGA	117.55	103.29
344410CH	Pentium III	RB80526PY001256	1000	133	256kB	FC-PGA	133.25	117.09
344575CH	Pentium III	RK80530KZ012512	2.8	133	512kB	FC-PGA2	230.19	218.69
344516CH	Pentium 4	RK80532PC041512	2.0A	400	512kB	mPGA-478	238.79	224.45
344559CH	Pentium 4	RK80532PE056512	2.4	533	512kB	mPGA-478	183.99	181.55
344305CH	Celeron	FV80524RX300128	300A	66	128kB	PGA-370	84.49	66.69
344348CH	Celeron	KC80526LY400128	400	100	128kB	BGA2	81.25	64.15
344330CH	Celeron	FV80524RX433128	433	66	128kB	PPGA	73.35	64.45
344399CH	Celeron	RB80526RX733128	733	66	256kB	FC-PGA	72.19	56.99
344381CH	Celeron	RB80526RY850128	850	100	128kB	FC-PGA	72.19	56.99
344356CH	Celeron	RK80530RY009256	1.2	100	256kB	FC-PGA2	78.39	68.89
344461CH	Celeron	RK80532RC041128	2.0	400	128kB	mPGA-478	94.05	91.79
344479CH	Celeron	RK80532RC060128	2.5	400	128kB	mPGA-478	117.55	103.29

## Intel® CPUs with Legs

You know engineers prefer to design with the components that possess long life cycles. For this very reason, and because Intel CPUs are notorious for their short life spans, Intel has created the Embedded Processor Roadmap. This roadmap earmarks the processors that Intel will continue to manufacture and support for many years, even after the consumer popularity for the processor has long since vanished. In other words, the CPUs listed on Intel's Embedded Processor Roadmap will be around for many years to help support the long-term needs of embedded applications. You get the stability of Intel Architecture combined with the longevity of other traditional embedded components.

To download a copy of the Intel Embedded Processor Roadmap, just type "Intel Embedded Roadmap" in the search field at [www.Jameco.com](http://www.Jameco.com).

**Practical Practices**  
Money Saving Tips for the Engineer



## Hard Disk Drives



### 3.5" LP EIDE/100 Disk Drives

Part No.	Model No.	Capacity	Interface	RPM	Seek (ms)	Cache (MB)	Mfr. Warranty	1	5
319361CH	WD2500SB	250GB	EIDE/100	7200	8.9	8	3 yrs ..	\$243.59	\$231.49
319370CH	WD1600SB	160GB	EIDE/100	7200	8.9	8	3 yrs ..	143.55	136.59
319388CH	WD1200SB	120GB	EIDE/100	7200	8.9	8	3 yrs ..	131.39	124.85

### 3.5" LP UATA/100 Disk Drives

Part No.	Model No.	Capacity	Interface	RPM	Seek (ms)	Cache (MB)	Mfr. Warranty	1	5
319441CH	WD2500JB	250GB	UATA/100	7200	8.9	8	3 yrs ..	\$228.55	\$217.15
319505CH	WD2500BB	250GB	UATA/100	7200	8.9	2	1 yr ..	223.45	212.29
319450CH	WD2000JB	200GB	UATA/100	7200	8.9	8	3 yrs ..	151.69	144.35
319513CH	WD2000BB	200GB	UATA/100	7200	8.9	2	1 yr ..	146.25	139.15
319468CH	WD1600JB	160GB	UATA/100	7200	8.9	8	3 yrs ..	129.99	123.59
319521CH	WD1600BB	160GB	UATA/100	7200	8.9	2	1 yr ..	117.85	111.95
319476CH	WD1200JB	120GB	UATA/100	7200	8.9	8	3 yrs ..	115.15	109.35
319530CH	WD1200BB	120GB	UATA/100	7200	8.9	2	1 yr ..	106.99	101.65
319484CH	WD800JB	80GB	UATA/100	7200	8.9	8	3 yrs ..	89.39	84.99
319548CH	WD800BB	80GB	UATA/100	7200	8.9	2	1 yr ..	79.89	75.95
319492CH	WD400JB	40GB	UATA/100	7200	8.9	8	3 yrs ..	75.85	72.05
319556CH	WD400BB	40GB	UATA/100	7200	8.9	2	1 yr ..	68.99	65.69

### 3.5" SATA/150 Disk Drives

Part No.	Model No.	Capacity	Interface	RPM	Seek (ms)	Cache (MB)	Mfr. Warranty	1	5
319337CH	WD2500SD	250GB	SATA/150	7200	8.9	8	3 yrs ..	\$253.15	\$240.55
319396CH	WD2500JD	250GB	SATA/150	7200	8.9	8	3 yrs ..	239.69	227.75
319409CH	WD2000JD	200GB	SATA/150	7200	8.9	8	3 yrs ..	166.59	158.65
319345CH	WD1600SD	160GB	SATA/150	7200	8.9	8	3 yrs ..	149.15	141.79
319417CH	WD1600JD	160GB	SATA/150	7200	8.9	8	3 yrs ..	135.49	128.99
319353CH	WE1200SD	120GB	SATA/150	7200	8.9	8	3 yrs ..	132.75	126.19
319425CH	WD1200JD	120GB	SATA/150	7200	8.9	8	3 yrs ..	120.55	114.99
319433CH	WD800JD	80GB	SATA/150	7200	8.9	8	3 yrs ..	93.45	88.79
319311CH	WD740GD	74GB	SATA/150	10,000	4.5	8	5 yrs ..	260.19	247.19
319329CH	WD360GD	36.7GB	SATA/150	10,000	5.2	8	5 yrs ..	153.25	145.65

### 2.5" LP EIDE/100 Disk Drives

Part No.	Model No.	Capacity	Interface	RPM	Seek (ms)	Cache (MB)	Mfr. Warranty	1	5
319732CH	WD400UE	40GB	EIDE/100	5400	12	2	1 yr ..	\$99.69	\$94.71
319708CH	WD400VE	40GB	EIDE/100	5400	12	8	1 yr ..	112.25	106.65
319724CH	WD600UE	60GB	EIDE/100	5400	12	2	1 yr ..	133.35	126.70
319695CH	WD600VE	60GB	EIDE/100	5400	12	8	1 yr ..	140.49	133.49
319716CH	WD800UE	80GB	EIDE/100	5400	12	2	1 yr ..	190.25	180.75
319687CH	WD800VE	80GB	EIDE/100	5400	12	8	1 yr ..	196.25	186.41

♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## Legacy 3.5" Hard Disk Drives\*

Part No.	Capacity	Description	Warranty	1	10
146333CH	2.5GB♣	EIDE/FAST ATA-2	1 year ..	\$33.29	\$29.95
151044CH	4.3GB♣	EIDE/Ultra DMA33	1 year ..	49.95	45.95
124978CH	1.27GB♣	EIDE	1 year ..	29.95	26.95
118949CH	850MB♣	IDE	1 year ..	49.95	47.45
115764CH	425MB♣	IDE	3 mos. ....	45.95	43.65
189914CH	9.1GB♣♣	Ultra-wide SCSI SCA	3 mos. ....	25.49	19.95

\* Manufacturers may vary & capacity may exceed specification

♣ Pull = Extra Savings ♣ Blue Part No. = Limited Quantity Available

## Legacy Intel® Desktop Processors

Part No.	Description	Speed (MHz)	Package	1	10
311204CH	Intel Celeron® processor♣	800	FCPGA-370	\$99.95	\$94.95
311212CH	Intel Celeron® processor♣	566	FCPGA-370	47.79	45.39
183118CH	Intel Pentium® III processor	600	Slot 1	99.95	94.95
183100CH	Intel Pentium® II processor	400	Slot 1	95.99	71.99
151651CH	Intel Pentium® II processor	300	Slot 1	89.95	85.45
190060CH	Intel Pentium® II w/ heat sink	233	Slot 1	89.95	79.95
150501CH	Intel Pentium MMX® processor	233	376/PGA	69.95	62.95
140054CH	Intel Pentium MMX® processor♣	200	376/PGA	49.95	37.45
130841CH	Intel Pentium® processor	166	296/PGA	55.95	45.81
130833CH	Intel Pentium® processor	133	296/PGA	39.95	35.95
118421CH	Intel 486DX2 processor♣	66	168/PGA	19.95	16.96

♣ Pull = Extra Savings

## 1.44MB 3.5" Internal Floppy Disk Drives

- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Automatically determines if disk is high or low density
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)
- Weight: 1.4 lbs.

♣ Pull = Extra Savings

Part No.	Cross Ref. No.	Mfr.	Color	1	10
115490CH	FD235	TEAC	Beige	\$21.95	\$17.95
189165CH	—	Varies	Beige	10.95	9.95
249367CH	MPF920-Z	Sony	Beige	16.95	15.99

**SALE**

## Internal Optical Drives

- 5.25" half-height design
- One-year warranty
- Manufacturer varies

Includes: Audio cable

♣ Pull = Extra Savings Blue Part No. = Limited Quantity Available

### CD-ROM

Part No.	Speed	Buffer	kB/sec.	1	10
189069CH	40x ♣	128kB	6000	\$32.95	\$19.99
345009CH	52x ♣	128kB	—	25.35	24.09
189448CH	56x	128kB	8400	\$39.95	29.95

### CD-RW/DVD

- 52x read/write;
- 32x rewrite; 16x DVD

Part No.	Speed	Buffer	kB/sec.	1	10
345017CH	52x ♣	2MB	—	\$52.15	\$50.75

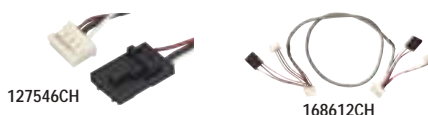
### DVD-RW

- 48x read; 16x and 8x write; 4x rewrite

Part No.	Speed	Buffer	kB/sec.	1	10
345025CH	48x ♣	2MB	—	\$96.25	\$91.45

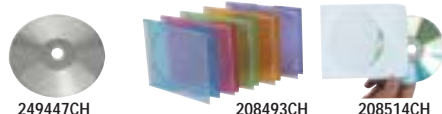
♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

## CD-ROM Audio Cables



Part No.	Connection from Sound Blaster to	Length	1	10	50
127546CH	Sony/MPC2	25"	\$2.95	\$2.65	\$2.29
168612CH	Universal	18"	4.95	4.45	3.99

## CD Accessories



Part No.	Description	1	5	10
249447CH	48x/700MB/80 min./100 pk.	\$30.45	\$28.95	\$26.55
172179CH	Single jewel case	.49	.41	.31
208514CH	Paper envelope 25 pk.	2.49	2.25	1.99
208493CH	Slim asst. color 10 pk.	\$3.95	3.09	2.79

Found a product at a lower print advertised price? We'll beat that price by 10% right down to our cost.

## Thermoelectric Cooler Chips

- Cools down to -30°C (dependent on external temp.)
- Heat or cool by changing direction of current
- 20 AWG wire leads, 4" long
- Temperature = 60°C max.

172030CH: 8.4VDC max.

Couples: 71\* • Watts: 19.7

Current: 4A max.

Size: 1.2"L x 1.2"W x 0.2"T

172048CH: 15.4VDC max.

Couples: 127\* • Watts: 35.6

Current: 4A max. Size: 1.6"L x 1.6"W x 0.2"T

172056CH: 15.4VDC max.

Couples: 127\* • Watts: 79.1

Current: 8A max. Size: 2.0"L x 2.0"W x 0.2"T

Part No.	Mfr.	Cross Ref. No.	1	10
172030CH	TEC30	.....	\$19.95	\$17.95
172048CH	TEC40	.....	25.95	22.95
172056CH	TEC50	.....	33.75	29.35

\* Couples: # of P&N type semiconductor pairs connected electrically in series

## Front Panel Access Ports

Enjoy easy up front access to all your most used ports, including USB, IEEE 1394, audio, and serial ports, without moving the PC.

208004CH: 2 USB; 1 IEEE 1394; Line-In; Line-Out; RS232 (9-pin male)

213532CH: 4 USB; Line-In; Line-Out

Part No.	Description	1	10
208004CH	Front panel port	\$34.95	\$32.45
213532CH	Front panel port	18.95	16.95

## PCMCIA Card Drive For Desktop PC

Now you can have a PCMCIA drive on your desktop PC. Supports SRAM cards, FLASH cards, LAN cards and FAX/MODEM cards.

- Jumper selectable for 4 drives
- Supports DOS 5.0 or later, Windows® 3.1 or later
- Supports Type I/II/III PCMCIA cards

Part No.	Description	1	10
210999CH	PCMCIA drive	\$69.95	\$34.65

We've expanded our selection of HDD enclosures, turn to page 199 for more.



## Mounting Kits

Part No.	Mfr.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
180857CH	HDB35	.....	3.5" hard drive mount kit (short)	0.2	\$3.89	\$3.49	\$3.15
117217CH	HDMK	.....	3.5" kit (w/ black & gray faceplates)	0.6	\$7.95	5.75	5.18
32088CH	SMK	.....	3.5" to 5.25" mounting kit (beige faceplate)	0.5	5.89	5.29	4.79

## Removable IDE HDD Enclosures For 3.5" Drive Bay

- For quick drive swapping
- Power LEDs
- Keylock for security

196040CH:

Size: 5.8"W x 8.5"D x 1.5"H

Weight: 1.2 lbs.

196031CH:

Size: 4.1"W x 7.5"D x 1.6"H

Weight: 0.8 lbs.

319775CH:

Size: 5.8"W x 8.9"D x 1.6"H • Weight: 1.32 lbs.

Includes: Inner cable with IDE connector

Part No.	Description	1	10	25
196040CH	IDE encl. w/ insert ..	\$27.95	\$20.95	\$14.69
319775CH	IDE encl. w/ insert ....	15.55	14.79	14.05
196031CH	Insert for 196040CH ..	19.95	17.95	16.16

## Removable IDE HDD Enclosure For 5.25" Drive Bay

- Supports DMA 66 hard drive
- Retaining lock mechanism
- 12VDC @ 50mA fan
- CFM rating: 5.6
- Size: 5.9"W x 8.7"D x 1.6"H
- Weight: 1.3 lbs.

Includes: Mounting hardware

Part No.	Description	1	10	25
170608CH	Enclosure kit (IDE)	\$25.45	\$22.89	\$19.95

## External IDE HDD Enclosure with Parallel Interface

An external HDD enclosure for IDE hard drives with a parallel port interface to be connected to a PC or laptop. No drivers needed. Windows® 98 and above will automatically detect hard disk drive.

- Parallel port interface
- Built-in fan and 110V power supply

Includes: Parallel cable and power cord

Part No.	Description	1	5
249316CH	HDD external enclosure	\$17.95	\$16.16

## Business Card CD-R Kit

Differentiate yourself or your business from others. This kit includes 12 50MB capacity CD-R and sleeves, 16 labels and label design software. A great way to promote your business in trade shows and exhibits. Easy to carry and cost-effective.

Part No.	Description	1	5
249308CH	Business card CD-R kit	\$6.59	\$4.95



## PC Speakers

Perfect for desktop PCs with limited amount of space. Compatible with any desktop PC.

- 3.5mm stereo male plug
- Size: 4.7"H x 3.0"W x 4.0"D



**SALE**

Part No.	Model No.	1	5	10
311079CH	5065-5746 ....	<del>\$49.95</del> \$15.99	\$14.39	\$12.95



## Dragon 180-Watt Multimedia Speakers

- 2-Channel stereo amplifier
- Magnetically shielded
- Two 3" 4Ω full-range speakers
- Frequency response: 100Hz to 20kHz
- Front panel control for volume, power, 3.5mm mini stereo jack
- Size: 7.0"H x 3.0"W x 5.3"D • Weight: 2.0 lbs.



**SALE**

Power requirements: 2-prong 110VAC input

Part No.	Description	1	10	25
277229CH	180W speakers	<del>\$44.95</del> \$9.99	\$8.99	\$8.09

## Harman/Kardon Multimedia Amplified System

- 4.5W RMS per amplified speaker
- Transducer: 3" full range driver, magnetically shielded
- Freq. range: 90Hz to 20kHz
- Volume control, bass and treble control, LED indicator and headphone jack
- Size: 8.5"H x 4.5"W x 5.0"D • Weight: 4.7 lbs.



Includes: 16VAC @ 1A power supply

Part No.	Description	1	10
211001CH	H/K speaker system	\$12.95	\$11.65

## 480-Watt Multimedia Speakers

- 2 magnetically shielded speakers
- 2-channel stereo amplifier
- Push button type power switch with LED indicator
- Knob controls for volume, bass & treble
- Input voltage: 120VAC
- Size: 5.5"W x 7.0"D x 9.1"H • Weight: 5.3 lbs.



Part No.	Description	1	10
196066CH	480W speakers	\$39.95	\$35.95

## Hands-Free Condenser Microphone

- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty



Part No.	Description	1	10	50
135247CH	Microphone	\$4.49	\$3.99	\$3.65

## Hands-Free Condenser Microphone

- Clip on microphone
- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.7"L x 1.3"W x 0.9"H



Part No.	Description	1	10	100
319759CH	Microphone	\$3.89	\$3.69	\$3.55

**Over 99% of Our Products Are In Stock**

Place your order by 6PM EST for same business day shipment.

# Books and Interface Cards

## Parallel Port Complete

**Lakeview Research** Hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

- Windows® 3.1 & Windows® 95 • Selecting cables
- PC to PC links • Size: 7.0" x 10.0" • Weight: 1.4 lbs.

Includes: 3.5" diskette



Part No.	Description	Price
138261CH	Parallel Port Complete	\$32.89

## Serial Port Complete

**Lakeview Research** Provides you with everything you need to design, program, install and troubleshoot the links you set up. (306 pages, 1998)

- Size: 7" x 10" • Weight: 1.3 lbs.

Includes: 3.5" diskette



Part No.	Description	Price
154771CH	Serial Port Complete	\$39.95

## Pocket PC Reference Book

**Sequoia Publishing** The new Pocket PCRef 13th edition includes troubleshooting tools, wiring diagrams, connectors and pin outs, commands for WinXP and UNIX, CDROM drive configuration data, hard drive specifications, PC hardware, ASCII numbers, CPU processor specifications and much more. (1088 pages, 2004)

- Size: 4" x 6" • 1088 pages



Part No.	Description	Price
355231CH	Pocket PCRef	\$15.15

**NEW**

## Complete Embedded Ethernet and Internet Book

**Lakeview Research** Learn about networking with embedded systems. Topics include networking basics, hardware options in building a network, using internet protocol in local and internet communications. (482 pages, 2003)

- Size: 7.0" x 9.0" • Weight: 1.7 lbs.

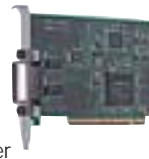


Part No.	Description	Price
236945CH	IC Design Projects Book	\$44.95

## PCI GPIB IEEE-488.2 Board

### PCI Bus

- 1 MB/s transfer rate
- 1024 word FIFO buffer
- 7 interrupt lines, shared interrupt capability
- IEEE 488.2 standard interface
- Complete talker/listener/controller
- Transparent interrupt enabling/disabling



Part No.	Mfr. Cross Ref. No.	1	10
177121CH	PCI-GPIB-1M	\$398.95	\$358.95
73154CH	IEEE-488 1 meter cable	36.49	32.79
115781CH	IEEE-488 2 meter cable	37.95	34.19
115801CH	IEEE-488 4 meter cable	38.95	36.19

## Digital Input/Output Board TTL Level

### PCI Bus

- Output: 2.5mA @ 0.45V sink, 2.5mA @ 2.4V source
- 24-bit digital I/O
- Three 8-bit ports

Includes: InstaCal: installation & test utilities software



Part No.	Product No.	1	10
197827CH	PCI-DIO24	\$88.95	\$85.95



## Diagnostic Card for PCI-Bus Systems

This is the first diagnostic card for monitoring POST results in systems using PCI-Bus architecture.

- LEDs for monitoring power (DC): +12, -12, +5, +3
- Comprehensive manual w/ error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more
- One-year warranty

Blue Part No. = Limited Quantity Available



Part No.	Description	Price
135108CH	PCI-POST diagnostic card	<del>\$265.95</del> \$240.45

**SALE**

## Digital Video Interface Cable

- DVI cable for flat panel LCD monitors and high-end video graphics cards
- Connector: DVI-D single link type
- Length: 6'



Part No.	Description	1	10	100
320346CH	DVI cable	\$13.45	\$12.69	\$11.99

**NEW**



## USB Interface Cards

Lower \$\$\$

SALE

Part No.	Manufacturer	Mfr. No.	Bus Type	Ports	Connectors	Product Description	1	10	
208047CH	—	CI-6620	PCMCIA	2	USB	32-bit cardbus, 480Mbps transfer rate, supports Windows* 98/ME/2000 and MAC OS 8.6	<del>\$48.65</del>	\$35.69	\$32.44
344794CH	SYBA	SD-PCB-USB	PCMCIA	2	USB	32-bit cardbus Type II compliant, USB 2.0 compliant, data transfer rate of 480Mbps		29.35	27.89
310201CH	—	USB/PCI5	PCI	4 ext / 1 int	USB	USB 2.0 compliant, open host controller interface USB 1.0A compliant, Windows* 98/ME/2000/XP		14.95	14.19
344815CH	SYBA	SD-PCB-COM	PCMCIA	4	USB/Firewire	32-bit bus Type II slot, USB 2.0 and IEEE 1394a compliant, open HCI V1.0 and 1.1 compliant		41.59	39.52
344778CH	SYBA	SY-VIA-5UB	PCI	4 ext / 1 int	USB	32-bit host interface, VT6212 (USB 2.0) host controller chip, USB 2.0 Rev 1.1 compliant		13.55	12.86

## Firewire Interface Cards

215984CH	—	U02-00315	PCMCIA	2	IEEE-1394	32-bit bus, IEEE1394 compliant, 400Mbps max., backward compatible, supports Windows* 98SE/ME/2000/XP and MAC OS 8.6 or above	<del>\$56.59</del>	\$44.29	\$40.29
344760CH	SYBA	SY-VIA-4F	PCI	3 ext / 1 int	Firewire	VT3606 controller chip, 32-bit, IEEE 1394-1995 and 1394a compliant		21.79	20.70

## Network Interface Cards

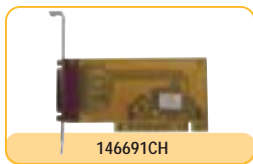
285501CH	—	RTL8139D	PCI	1	RJ-45	IEEE802.3 and 802.3u compliant, auto detection of 10Mbps or 100Mbps, N-way 10/100 auto negotiation.	\$13.49	\$12.15	
285510CH	—	905B ♣	PCI	1	RJ-45	IEEE802.3 and 802.3u, N-way 10/100 auto negotiation	<del>\$13.99</del>	11.99	10.79
285528CH	—	GD82559 ♣	PCI	1	RJ-45	IEEE802.2 and 802.3 compliant, 6kB cache on board, 10/100 auto negotiation, supports Windows* 95/98/2000/NT3.51/NT4.0	<del>\$13.99</del>	11.99	10.79
313710CH	Phoebe	OCTNIC-100	PCI	1	RJ-45	IEEE802.3 auto negotiation compliant, Windows* 95/98/NT/ME/2000/XP compatible.	12.65	11.99	
289238CH	3-COM	3C509B-COMBO	ISA	2	RJ-45/ AUI/BNC	IEEE802.3i (10Base-T) and IEEE802.3 (10Mbps) compliant.	9.49	8.99	
308769CH	3-COM	3C509B-TPO	ISA	1	RJ-45	IEEE802.3i (10Base-T) and IEEE802.3 (10Mbps) compliant.	15.49	13.95	
308646CH	COMPEX	RL200A-PnP	ISA	2	RJ-45/BNC	IEEE802.3 (10-BaseT) 10Mbps, supports NETWARE, LAN manager, Windows* 95/NT/Workgroups/OS2.	18.09	16.25	
355039CH	GetOn	C130	PCMCIA		Wi-Fi	32-bit cardbus interface, IEEE 802.11b compliant, wireless data-rate (1Mbps to 11Mbps), supports Windows* 98/2000/ME/XP	17.59	16.72	

## Serial Interface Cards

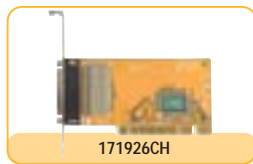
171361CH	—	4025A	PCI	1	DB9	32-byte FIFO, 921kb/sec transfer rate, supports IRQ sharing, single 16C550	\$38.95	\$35.95
171555CH	—	99378	ISA	2	DB9	16-byte FIFO, 921kb/sec transfer rate, IRQ 3/5/7/9/10/11/1/15 and address jumper configurable, dual 16C550 DB9 male.	24.95	21.85
132572CH	—	TC-400-550	ISA	4	DB9/DB25	16 or 32-byte FIFO, supports IRQ sharing, dual 16C550 DB9 male, dual 16C550 dual DB25 male.	59.95	53.95
172005CH	—	99467	PCI	2	DB9	32-byte FIFO, 921kb/sec transfer rate, supports IRQ sharing, dual 16C650 DB9 male.	48.45	43.65
171547CH	—	99468	PCI	4	DB25	32-byte FIFO, standard RS-232 interface, 921kb/sec transfer rate, supports IRQ sharing 16C550	129.95	116.95
171660CH	—	99469	PCI	8	DB25	32-byte FIFO, standard RS-232 interface, 921kb/sec transfer rate, supports IRQ sharing 16C650.	179.95	161.95
164451CH	Measurement Computing	PCM-COM232 ♣	PCMCIA	1	DB9	PCMCIA II compliant, configured as COM1/COM2/COM3/COM4.	97.95	92.95
344903CH	SYBA	SD-PCI-1S	PCI	2	DB9	32-bit PCI bus, dual DB-9 male, Nm9835CV chipset	27.49	26.15

♣ Pull = Extra Savings    ♣ Blue Part No. = Limited Quantity Available

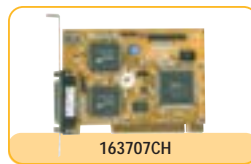




146691CH



171926CH



163707CH

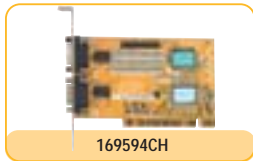


312039CH

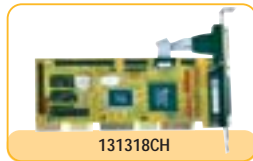


344874CH

NEW



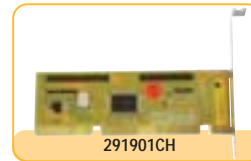
169594CH



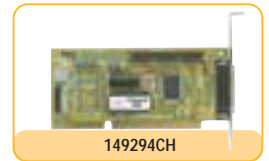
131318CH



206316CH



291901CH



149294CH

## Parallel Interface Cards

SALE

Part No.	Manufacturer	Mfr. No.	Bus Type	Ports	Connectors	Product Description	1	10
146691CH	—	4006A	PCI	1	DB25	BPP/SPP mode compliant, Windows® 95/98/NT4.0 drivers supported	\$23.95	\$21.95
171926CH	—	4008A	PCI	1	DB25	32-byte FIFO, 2MB/sec transfer rate, supports ECP and EPP, supports IRQ sharing, DB25 female.	39.95	35.95
163707CH	—	4014A	PCI	2	DB25	BPP/SPP mode compliant, Windows® 95/98/NT4.0 drivers supported	<del>\$26.95</del> 26.55	24.15
312039CH	Kouwell	KW-508G-2	ISA	2	DB25	Dual DB25 female. ECP/EPP/SPP mode compliant, LPTport, IRQ selectable	24.05	22.85
344874CH	SYBA	SD-PCI-1P	PCI	1	DB25	32-bit PCI, single DB25 female, NETMOS Nm9805CV chipset, IEEE 1284 compliant	23.59	22.45

## Serial and Parallel Interface Card

169594CH	—	4078A	PCI	—	DB25	BPP/SPP mode compliant, Windows® 95/98/NT4.0 drivers supported. Includes parallel DB25 female panel bracket assembly (single parallel / dual 16C550 serial)	\$56.95	\$54.09
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## Super I/O Controller Cards

131318CH	—	KW-557A	ISA	—	Mult.	Supports 2 IDE and 2 floppy drives, single parallel port, dual RS-232 (16550 UART).	\$29.95	\$26.95
206316CH	—	CA8390	ISA	—	Mult.	16-bit data transfer, supports 2 floppy drives (360k-1.44Mb), controls 2 AT BUS hard disk drives	<del>\$49.95</del> 11.09	10.09
291901CH	—	MCT-IDEFH-2	ISA	—	Mult.	16-bit interface, supports 2 IDE hard drives up to 528MB and 2 floppy drives from 360kb to 1.44Mb, jumper selectable for enabling and disabling ports	28.89	25.99
149294CH	—	CI-2020	ISA	—	50-pin F	DOS/Windows® /NT/95/OS2 Network/SCO UNIX, internal and external SCSI connectors.	<del>\$67.95</del> 33.99	29.99
191513CH	Adaptec	AHA-2940U2B	PCI	—	68-pin F Ultra SCSI2	AIC-7890AB chipset, Windows® 95/NT, Netware, OS/2 compatible, internal/external ULTRA II SCSI 68-pin connectors,	29.95	26.95

## Modem Card

311706CH	Dolphin	CX11252	PCI	—	RJ-11	300-56K data line speed, 2400-14.4K fax line speed, Group 3 w/ T.30 protocol compatible.	\$8.99	\$8.65
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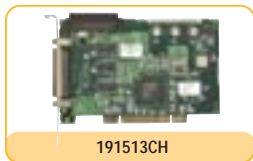
## Video Graphics Cards

248840CH	—	PS32985DR-8MB	PCI	—	HDDB15	Savage IX 8MB graphics accelerator, built-in direct draw accelerator and NTSC/PAL video encoder 4-bit resolution	<del>\$39.95</del> 28.99	\$26.35
345181CH	Giga-Byte	GV-R7064T	AGP	—	HDDB15	64-bit memory bus with ATI Radeon 7000 graphics processor, 183MHz core clock speed, 64MB DDR SDRAM	40.49	40.30
345201CH	Giga-Byte	GV-R925128D	AGP	—	HDDB15	128-bit memory bus with ATI Radeon 9250 graphics processor, 128MB DDR memory, supports TV-out, DVI-I port and dual display with hydravision	65.25	61.68
345210CH	Giga-Byte	GV-R925128VH	AGP	—	HDDB15	128-bit memory bus with ATI Radeon 9250 graphics processor, 128MB DDR memory, supports video capture for video editing, TV-out, DVI port, multiview and dual display with hydration	76.75	74.15
345244CH	Giga-Byte	GV-N40128TE	AGP	—	HDDB15	64-bit memory bus with NVIDIA GeForce MX4000 chipset, 400MHz mem clock speed, 128MB DDR memory, supports TV-out and multiview	57.55	54.50
345252CH	Giga-Byte	GV-N5212DE	AGP	—	HDDB15	64-bit memory bus with NVIDIA GeForce FX5200 chipset, 400MHz mem clock speed, 128MB DDR memory, supports TV-out, DVI port and multiview	66.19	65.05
345261CH	Giga-Byte	GV-N5212DE	AGP	—	HDDB15	128-bit memory bus with NVIDIA GeForce FX5000 chipset, 500MHz mem clock speed, 300MHz core clock speed, 128MB DDR memory, supports TV-out, DVI port and multiview	92.89	91.05

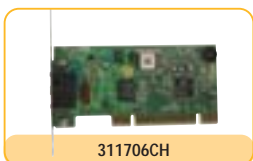
## Sound Cards

249404CH	Creative	CT4830	PCI	—	Multi	2-audio line-out (mini-stereo 3.5mm F), 1 microphone input (mini phono 3.5mm F), 1 audio line-in (mini stereo 3.5mm F) and 1 game port (DB15F)	<del>\$36.95</del> 29.95	\$26.95
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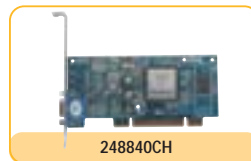
♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD. ⚙ Blue Part No. = Limited Quantity Available



191513CH



311706CH



248840CH



345181CH



345201CH

NEW

NEW



345210CH



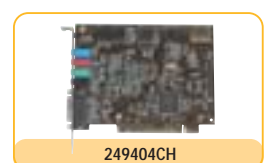
345244CH



345252CH



345261CH



249404CH

NEW

NEW

NEW

NEW



## External 3-Port USB Thumbhub

Expand your single USB port to a stacked 3-port thumbhub.

- USB Revision 1.1 compliant
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate
- Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS8.5
- Size: 3.1"L x 0.8"W x 1.2"H



Part No.	Description	1	10
208451CH	3-port thumbhub	<del>\$13.99</del> \$11.99	\$10.92

## 2-Port Mini USB Hub

- USB 1.1 compliant
- Bus powered mode indicated by power LED
- Downstream port supports full and low speed operations
- Plug & Play



**System requirements:** IBM compatible Pentium® 233MHz or faster and MAC PC, 64MB of RAM, available USB port, compatible with Windows® 98SE/ME/2000/XP/Mac OS 8.6 or higher

Part No.	Description	1	10
291856CH	2-port mini hub	\$23.25	\$20.95

## External 7-Port USB Hub

- 7 USB-A female output ports
- USB-B female root port
- Plug & Play compatible
- Allows you to attach 128 USB devices to your PC
- LED indicators for port, status, and power
- Size: 7.9"L x 2.8"W x 1.1"H • Weight: 2.6 lbs.



**Includes:** 6VDC power adapter and USB-A male to USB-B female cable

Part No.	Description	1	10
191450CH	7-Port USB hub	\$34.19	\$25.45

## External USB-A IrDA Transceiver

Convert your USB port into an infrared communications port.

- Adjustable base for height and angle
- Plug & Play
- Supports standard USB port
- Meets IrDA v1.0 and v1.1
- Supports data transfer rate from 115.2k up to 4Mbit per second
- Transmission distance of 3.3' or 39.4"
- Size: (including base) 2.4"L x 1.6"W x 0.9"H



**System requirements:** Windows® 98/ME/2000/XP  
**Includes:** Manual, extension cable and 3.5" drivers

Part No.	Description	1	10
213903CH	USB-A to IrDA transceiver	<del>\$35.59</del> \$30.69	\$27.92

## AmbiCom Wireless Printer Kit

Print up to 100 Feet Away, Wirelessly!

The wireless revolution makes your current printer conveniently cable-free! Works with USB connected Canon, Epson, HP and Lexmark printers.

- USB-B type adapter for printer and USB-A type adapter for PC
- Windows® 98SE/ME/2000/XP and Mac OS X compatible
- Receiver sensitivity: -84dBm • 128-bit encryption • Plug & Play

Part No.	Description	Data Throughput	Frequency Range	Price
235133CH	Wireless printer kit	340kbps	2.4GHz - 2.4835GHz	<del>\$69.95</del> \$61.29

## USB Thumb Drives

Thumb drives are compact and fit easily in your pocket or hang around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME and above.

- 10 year data retention • Size: 2.9"L x 0.7"W x 0.4"H
- Windows® 98/98SE drivers are available at [www.Jameco.com](http://www.Jameco.com)
- Blue Part No. = Limited Quantity Available



Part No.	Description	1	10
217761CH	32MB	<del>\$24.95</del> \$20.29	\$18.45
217779CH	64MB	<del>\$39.95</del> 37.09	33.71
217787CH	128MB	<del>\$59.95</del> 49.95	44.96
217795CH	512MB	<del>\$159.95</del> 99.99	89.99

## SmartBeam™ Infrared Adapter

Provides the simplest and fastest way to interface your PC or laptop with palmtops, organizers, and even printers. Using industry standard IrDA 1.0 technology, it can communicate with other devices that are IrDA up to 115.2kbps. Connect this device to a serial port and share files, printers, and even send email.



**Includes:** Software & DB9 M-to-DB25 F serial adapter

Part No.	Description	1	10
291821CH	Infrared adapter	\$25.89	\$23.29

## Everything You Need To Develop Custom USB Peripherals Book

**Lakeview (2nd Edition)** Provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)

- Size: 7.0" x 9.0" • Weight: 1.9 lbs.



Part No.	Description	Price
171900CH	Complete USB Book	\$49.95

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 258.



For a list of compatible printers, visit [www.Jameco.com](http://www.Jameco.com) and check on data sheet.

## IBM® 8-Port Ethernet Hub

Although designed to the exacting standards of IBM for use in large corporate networks, its price and easy setup make it perfect for small office or home office use. Compatible with all standard STP, UTP, and FTP cables. Can be cascaded to support larger networks via the MDI (uplink) port.



- Size: 8.7"W x 5.3"D x 1.1"H • Weight: 1.7 lbs.

Part No.	Description	1	10
226149CH	8-port hub	\$44.95	\$39.95

## 8-Port Ethernet Hub

Designed for easy installation and high performance in environments where traffic on the network and the number of users increase continuously. It's small and compact design was specifically designed for small to middle size workgroups and where space is limited. Ideal for deployment with multiple high-speed servers for shared-bandwidth 10Mbps or 100Mbps workgroups.



- LED indicators for link active and 100Mbps
- Size: 6.4"L x 3.4"W x 1.0"H
- Weight: 1.2 lbs.

**Includes:** 5VDC@2.5mA power supply

Part No.	Description	1	5
320506CH	8-port ethernet hub	\$35.45	\$33.65

## NETGEAR® 4-Port Firewall Router

11Mbps Cable/DSL

This true firewall is broadband capable, and provides you with the utmost in business class security - Denial of Service (DoS) protection and Intrusion Detection using Stateful Packet Inspection (SPI), URL access and content filtering, logging, reporting, and real-time alerts. Up to 253 users can access your broadband connection at the same time.



- Size: 7.4"W x 4.9"D x 1.3"H • Weight: 1.8 lbs.

**Includes:** 10' CAT5 cable, power adapter, user guide & CD-ROM software

• Blue Part No. = Limited Quantity Available

Part No.	Description	Price
233331CH	11Mbps cable/DSL firewall router	<del>\$67.76</del> \$60.35

## AUI/10BaseT Transceiver

Provides connectivity with work stations equipped with AUI ports to 10BaseT ethernet local area network. Switch selectable SQE (signal quality error)/ "Heartbeat Test" to detect collision.



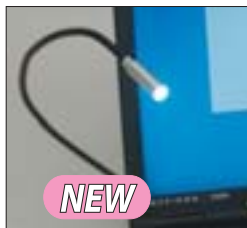
- IEEE 802.3 10BaseT compliance
- 4 LED indicators for receive, transmission, collision and link
- AUI 15-pin RJ45 connector
- Size: 2.3"L x 1.7"W x 0.8"H • Weight: 0.2 lbs.

Part No.	Description	1	10
215917CH	Ethernet transceiver	<del>\$29.95</del> \$20.39	\$18.55

## Mobile USB Light

*Light up your laptop and work anytime, anywhere!*

Whenever and wherever you need light on your keyboard, this USB-powered, flexible, plug-and-play LED lamp will deliver. Discreetly illuminate your keyboard during presentations in darkened boardrooms, or work on the plane without disturbing others.

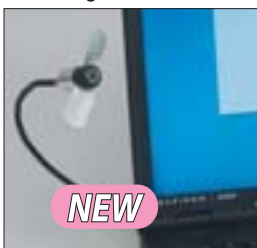


Part No.	Description	Price
256436CH	Mobile USB light	\$9.99

## Mobile USB Fan

*This is so cool, you'll be its greatest fan!*

Take advantage of a great deal on this innovative personal USB-powered fan for laptop computing! You'll enjoy the added comfort of features like a flexible gooseneck mount, soft nylon blades and quiet motor.



Part No.	Description	Price
256461CH	Mobile USB fan	\$8.99

## USB Keyboard Adapter

- USB-A female to 6-pin mini DIN male (PS/2)



Part No.	Description	1	10	25
316831CH	USB-A to PS/2	\$1.79	\$1.59	\$1.39

## USB 2.0 Cables

- Color: clear
- Higher transfer rate up to 480Mbps
- Backward compatible w/ USB 1.1 products
- For additional cable sizes and colors see page 91



Part No.	Description	1	10	25
229551CH	6' USB-A M	\$1.65	\$1.49	\$1.39
229569CH	10' USB-A M	1.89	1.75	1.65
229593CH	6' USB-A to USB-B M	1.65	1.49	1.39
229606CH	10' USB-A to USB-B M	1.89	1.75	1.65
229622CH	6' USB-A M to F	1.65	1.49	1.39
229631CH	10' USB-A M to F	1.89	1.75	1.65

**Save Big!  
Special  
Values!**

New Lower Prices = Orange  
Sale Priced Items = Yellow  
Quantity Discounts = Green  
New Products = Pink

## 2.5" External USB Enclosure

- 2.5" external enclosure for 2.5" hard drives
- Plug and play; hot-plug
- Transfer rate: 480Mbps (Ver. 2.0)
- Compatible with Windows® 98/98SE/ME/2000/XP
- Bus powered through USB connector



Part No.	Description	1	10
354984CH	2.5" enclosure	\$29.39	\$27.89

## Multimedia Card Reader

### USB Interface

An easy way to upload photos, files, movies, and data from your multimedia flash memory card to your computer! Drag and drop files from the card to your computer and vice versa.

- USB-A male connector
- 1 expansion slot for multimedia card
- Compatible with PC's and MAC's

Part No.	Product No.	1	5	10
278125CH	SDDR-1201	\$9.95	\$5.99	\$5.46

## USB Card Reader

This easy to use USB memory card reader is compact and yet very versatile. Supports all types of memory cards: compact flash types I and II, microdrives, both standard and reduced size multimedia cards, memory sticks, standard and mini secure digital cards, and smart media cards. USB 2.0 and 1.1 compliant, it supports transfer rates of up to 480Mbps and direct transfer between different types of memory cards.

- Supports hot-swap and wake-up
- Bus powered – no external power supply required
- LED indicators for power on and operation status of individual sockets
- Built-in USB-A cable

Part No.	Product No.	1	10	25
344840CH	SD-U2CR	\$19.95	\$18.95	\$17.95

## Compact Flash Memory

Compact Flash cards are the most popular type of flash storage used in many electronic devices today. These removable, compact cards are ideal storage solutions for taking more pictures with your digital camera, listening to more music with your MP3 player, and increasing the productivity your PDA, palmtop, or handheld PC.

- Read speed: up to 2MB/sec
- Write speed: up to 1.2MB/sec
- Burst mode from/to host interface: 8.3MB/sec
- Burst mode from/to flash interface: 20MB/sec
- Operating current: 40mA (typical)

Part No.	Size	1	10	25
344962CH	128 MB	\$18.99	\$17.99	\$17.15
344971CH	256 MB	31.69	30.15	28.59
344989CH	512 MB	53.55	50.85	48.29

## 3.5" Screwless Hard Drive Enclosure

- Screwless design
- Rugged Aluminum body
- Plug and play, hot-swapping capability
- Power-on and read/write access LED indicators
- USB 2.0 compliant
- IDE interface supports ATA, PIO, DMA, and UDMA hard drives



Size: 8.4"L x 4.7"W x 1.4"H  
Includes: USB 2.0 cable, 12VDC @ 1.6A power supply and CD-ROM drivers

Part No.	Product No.	1	5
344735CH	SD-U2PLA-35	\$31.45	\$29.89

## 5.25" Screwless HDD/CD-ROM Enclosure

- Screwless design
- Ultra-light plastic body
- Plug and play
- Power-on and read/write LED indicators
- Audio jack for CD-ROM analog audio output
- USB 2.0 compliant
- IDE interface supports ATA, PIO, ATAPI, DMA, and UDMA devices
- Supports Windows® 98/98SE/ME/2000/XP
- Size: 9.8"L x 6.5"W x 2.3"H



Includes: USB2.0 cable, base, 12VDC @ 1.6A power supply and CD-ROM drivers

Part No.	Product No.	1	5
344751CH	SD-U2DEL-525	\$44.89	\$42.65

## 5.25" Stackable CD/DVD/Hard Drive Enclosure

This 5.25" enclosure is designed to provide a solution in connecting existing storage devices such as 3.5" hard drives, MO drives, CDROM drives, and DVD drives to a USB 2.0 bus. An ideal interconnect for multimedia applications.



- Supports plug-n-play, hot-swap, and wake-up
- Peak data transfer rate of up to 480Mbps
- Accommodates all existing storage devices such as 3.5" IDE hard drives, MO drives, CD and DVD drives
- Compliant w/ USB Specification Rev. 2.0
- ATA/ATAPI-6, LBA48, PIO Mode, DMA mode, and UDMA mode supported
- Light-weight plastic body
- Size: 10.1"L x 6.5"W x 2.5"H
- Weight: 2.4 lbs.

Includes: USB-A to USB-B cable, 12VDC @ 2.0A power supply and CD-ROM drivers

Part No.	Product No.	1	5
344743CH	SY-UEN-5MYS-S	\$44.89	\$42.65

For Drives and additional HDD Enclosures see pages 193-194.





## Short Haul Modem

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)



Part No.	Description	1	10	25
116581CH	Short haul modem	\$29.95	\$26.95	\$23.95

## External 56kbps Fax/Modem with Digital Answering Machine

- Digital telephone answering machine with voice mail system
- RS-232 (DB9 female) interface
- Modem speed: 300-56000bps
- Error correction: ITU-T V.42, MNP2-4
- Data compression: ITU-T 1.42bis, MNP5
- Flow control: RTS/CTS, Xon/Xoff
- Fax/modem line speed: 2400-14400bps
- Standard compatibility: ITU-T V.17, V.27 ter, V.29
- Command set: Class 1, 1.0, 2 and associated AT command sets
- Size: 6.3"L x 4.0"W x 1.3"H



**System requirements:** Pentium® or PC compatible with 16MB of memory, available RS-232 slot; Windows® 9x/ME/NT4.0/2000/XP

**Includes:** RS-232 cable (DB25/DB9 female to DB9 male); phone cord, 9VAC@1A power supply, CD-ROM drivers and manual

Part No.	Description	1	10	
216493CH	Serial modem (Rockwell)	\$45.95	\$39.35	\$35.79

## USB Fast Ethernet Adapter

- Plug and Play
- IEEE802.3 (10 BaseT) and IEEE802.3 (100 BaseT) specification compatible
- USB Rev 1.0 and 1.1 compatible
- Supports OHCI and UHCI
- Self-powered
- 1 upstream USB port and RJ-45 port
- Supports Windows® 98/ME/2000/XP



Part No.	Description	1	5	10
310797CH	USB-Ethernet Adapter	\$21.69	\$19.55	\$17.55

## RS-232 to RS-485/422 Bidirectional Converters

- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- DCE and DTE selectable
- Point-to-point and multidrop operations
- RS-485: terminal block and RJ11 connections
- RS-232: DB25 female connector
- Input: 110VAC; except P/N 129218CH 220VAC input
- Weight: 0.9 lbs.
- One-year warranty



**197931CH:** port powered (power adapter not included)

**122956CH:** features RS-485SI; optical isolation: 2000V

**129218CH:** features 220VAC input

**Includes:** 9VDC @ 300mA power adapter

Part No.	Description	1	10
117701CH	RS-232-485/422	\$57.95	\$51.95
197931CH	RS-232-485/422	69.95	62.99
122956CH	RS-232-485/422 OPT ISO	119.99	107.99
129218CH	RS-232-485/422 (220 VAC)	42.95	36.95

## Wall Mount Phone Plate with DSL In-Line Filter

Replace your existing regular wall mount phone plates with this phone plate with built-in DSL in-line filter.

- Stop band isolation is 21dB from 25kHz to 50kHz and 25dB or greater
- Filter topology: 2-pole low pass
- DC resistance through T&R to telephone port is 13Ω maximum
- Size: 4.7"H x 3.2"W x .025"Thick



**SALE**

Part No.	Description	1	10
237041CH	Phone mounting plate	\$9.99	\$8.99

## Single-Line Telephone Filter

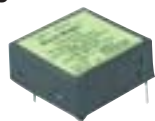
In-line Z-BLOCKER® filter blocks interference between DSL/HPN, voice and RF from cordless phones. Plugs directly into any standard phone jack and works with any single line phone, fax or dial-up modem.



Part No.	Description	1	10	25
196429CH	Telephone filter	\$7.95	\$7.15	\$6.25

## Black Magic Telephone Ringing Generator

Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents.



- Series resistor: 300Ω
- Nominal output voltage: 86Vrms
- No reverse polarity protection
- Frequency: 20Hz

Part No.	Product No.	1	10	25
145816CH	LBMR12	\$26.95	\$24.49	\$21.95

## Bidirectional Non-Buffered Serial-to-Parallel Converter

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake Xon/Xoff; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Stop bits: 1 or 2
- Weight: 0.8 lbs.
- Baud rate: 300 to 38,400bps
- Size: 4.0"L x 2.5"W x 1.0"H
- One-year warranty



**Includes:** AC adapter (9VAC @ 200mA) and manual

Part No.	Description	1	10	25
116935CH	Bi-converter	\$49.95	\$44.95	\$39.95

## Bidirectional Serial-to-Parallel Converter

### 115.2kbps, 512kB Buffer

- One DB25 female connector, one Centronics 36-pin male connector
- Fully compatible w/ Win® 95
- DCE/DTE selectable
- Baud rate: 300bps – 115,200bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- Size: 3.8"L x 2.4"W x 1.0"H
- Stop bits: 1 or 2
- Weight: 0.8 lbs.
- One-year warranty



**Includes:** 9VAC @ 200mA adapter

Part No.	Description	1	10
182983CH	Serial/parallel converter	\$48.49	\$44.95

## UTP Ethernet Cable Tester

- Connector type: RJ45 8P8C
- System used: 258A, 356A, AT&T/Ethernet 10BaseT
- Miswire, open, short tests

**Requires:** 9V battery (recommend P/N 151095CH, pg 183)

**Includes:** Zipper case



Part No.	Size	1	10
115895CH	4.5"L x 2.5"W x 1.3"H	\$29.95	\$26.95

## Modular Cable Tester

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc.



- Check for cable continuity, miswiring, open, short, grounding, and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM & BNC F-F
- On-board conn.: 2 RJ45F (tester) & 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)

**Includes:** Manual and test cables

Part No.	Description	1	10
145710CH	Modular cable tester	\$84.95	\$76.49

## Tone Generator & Amplifier Probe For Tracing Wires & Cables

- Tests wire trace, continuity, clear/busy/ringing line, tip/ring identification
- Insulated inductive probe tip prevents shorting conductors
- Selectable continuous or variable tone generation
- Output jacks for both headphones and handsets



**Includes:** Alligator test leads, modular phone connector cables, 9V battery, and carrying pouch

Part No.	Description	1	10
198002CH	Tone gen. & amp. probe	\$79.95	\$71.95

## Net Toner and Probe Kit

With testing functions such as sending tones, verifying lines, indicating line conditions, identifying tip and ring, providing "talk" battery and testing continuity, you can use this kit on single conductor, twisted pairs, coaxial cables, and non-energized electrical wiring. Connections include alligator clips, RJ45 jacks and RJ12 plugs.

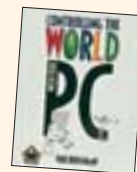


**Includes:** Padded zipper case w/ belt loop & spare tips

Part No.	Description	1	5
227897CH	Net toner & probe kit	<del>\$79.95</del> \$69.85	\$63.50

## Controlling the World with Your PC

**Hightext Publishing** Make your PC control stepping motors, monitor fluid levels, or switch appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. (257 pages, 1994)



**Includes:** 3.5" disk

Part No.	Description	1	Price
116943CH	Controlling the World	\$44.95	\$39.89





Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

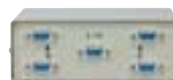


Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18

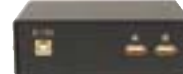


Fig. 19

## KVM Switchboxes

**SALE**

Part No.	Mfr.	Fig.	Product No.	Description	Connectors	Size (L" x W" x H")	Wt. (lbs.)	1	10
114155CH	—	1	40H1-14402	2-way keyboard / mouse switchbox (2PCs to 1 user)	HDDB15 female / 5-pin DIN female	6.0 x 4.0 x 2.3	1.3	\$14.95	\$13.49
216063CH	—	2	KS102	2-way KVM switchbox (2PCs to 1 keyboard/mouse/monitor)	PS/2 female for keyboard & mouse, HDDB15 female for monitor. Recommend gender changer PN 119301CH Pg 114 when ordering P/N 204062CH (6 ft. PS/2 cable) see below	4.3 x 3.0 x 1.2	0.6	47.99	43.65
310826CH	—	3	KVM2717	2-way KVM switchbox (2PCs to 1 keyboard/mouse/monitor)	PS/2 female for keyboard & mouse, HDDB15 female for monitor. Requires 9.5VDC@500mA power supply - recommend P/N 100175CH	4.7 x 4.0 x 1.8	1.5	49.19	46.75
310842CH	—	4	2-PRT KVN-USB	2-way KVM switchbox (2PCs to 1 keyboard/mouse/monitor) 2 USB-A male; 2 3.5mm jack	User connectors: PS/2 female for keyboard & mouse, HDDB15 female for monitor to PC connectors: 2 HDDB15 male for monitor,	2.9 x 2.7 x 1.1	1.5	82.29	78.15
310834CH	—	5	KS104	4-way KVM switchbox (4 PC's to one user)	PS/2 female for keyboard & mouse, HDDB15 female for monitor; Recommend P/N 202180CH pg 162 for power supply	7.4 x 2.9 x 1.3	7.1	112.49	102.26
149391CH	ATEN	6	CS-114A	4-way KVM switchbox (4 PCs to one user)	DB9 serial female / PS/2 keyboard & mouse (recommend P/N 204062CH for PS/2 cable see below) Includes manual and power supply	10.0 x 7.0 x 3.0	7.1	179.85	162.59
132249CH	—	7	40H1-25602	2-user switchbox (1PC to 2 users)	Keyboard (5-pin DIN male); Monitor (DB15HD female); Mouse (DB-9 male). Recommend P/N 114913CH (5-pin M-M cable); P/N 66173CH (DB15HD M-M cable); P/N 132345CH (DB9 F-F cable) pg 90	7.5 x 5.3 x 2.8	1.6	17.95	15.95
79177CH	—	8	40H1-07402	2-way keyboard / monitor switchbox (2 users to 1 PC)	HDDB15 female / 6-pin DIN female	6.0 x 4.5 x 2.6	1.3	19.95	17.95
134017CH	—	9	40H1-25604	4-user switchbox (1PC to 4 users)	Keyboard (5-pin DIN male); Monitor (DB15HD female); Mouse (DB-9 male). Recommend P/N 114913CH (5-pin M-M cable); P/N 66173CH (DB15HD M-M cable); P/N 132345CH (DB9 F-F cable) pg 90	7.5 x 5.3 x 2.8	2.3	21.95	19.95

## Serial-to-PC Switchbox

79126CH	—	10	40D1-10602	2-serial port switchbox	DB9 female (2-ports to 1PC)	6.0 x 4.8 x 2.5	1.2	\$9.95	\$8.95
183417CH	—	11	—	4-serial port switchbox	DB9 female (4-ports to 1PC)	6.1 x 4.0 x 2.2	1.3	19.95	17.95

## Network-to-Server Switchboxes

180099CH	—	12	40R2-01604	4-server RJ-45 switchbox	4 RJ45 8P8C female ( network devices to 4 servers)	8.0 x 6.1 x 2.2	2	\$14.95	\$13.49
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## Fax/Modem/Telephone-to-PC Switchboxes

79142CH	—	13	40R1-01602	2-PC RJ-11 switchbox	RJ-11 6P6C (fax/modem/telephone to 2PCs)	6.0 x 4.8 x 2.5	1.2	\$9.95	\$8.95
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## Parallel Printer-to-PC Switchboxes

20095CH	—	14	40D3-17602	2-port switchbox	DB25 female (2PCs to 1 printer)	6.0 x 5.8 x 2.3	1.4	\$8.95	\$7.95
155512CH	—	15	CURTIS DS3	2-port switchbox	DB25 female (2PCs to 1 printer) includes 25' DB25 M-M cable	7.2 x 4.9 x 2.5	2.3	36.49	3.79
20124CH	—	16	40D3-17604	4-port switchbox	DB25 female (4PCs to 1 printer)	6.0 x 4.0 x 2.4	1.5	14.95	13.49
177412CH	ATEN	17	AS-451P	4-port auto switchbox	DB25 female (4PCs to 1 printer)	—	0.5	6.49	5.85
289211CH	—	18	25F6	6-port switchbox	DB25 female (6PCs to 1 printer)	7.6 x 6.0 x 2.5	2.2	23.15	20.85

## USB-to-PC Switchboxes

310818CH	—	19	USB-2PORT	2-way USB switchbox	1 USB-B female; 2 USB-A female	5.1 x 3.7 x 1.8	2.5	\$26.19	\$24.89
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## Coaxial Switch Box

**SALE**

- 3-way switch box, switches from a single input source to 3 outputs
- 60dB isolation – shielded housing
- 75Ω input-output
- 5-900MHz UHF/VHF/FM



Part No.	Description	1	10	25
228241CH	Coaxial switch box ...	<del>\$6.95</del> \$4.89	\$4.43	\$4.02

## PS/2 Cable

- Use with P/Ns 149391CH & 216063CH above



Part No.	Description	1	10
204062CH	6' PS/2 cable .....	\$16.95	\$15.29

## ATX Vertical Full Tower Case

**SALE**

- Slide-off side panel access
- LED indicators for power and HDD activity
- Front panel reset switch and power switch
- Internal 8Ω speaker
- 5 exposed 5.25" bays, 3 exposed 3.5" bays, 2 internal 3.5" bays
- Size: 7.5"W x 16.8"D x 24.5"H
- Weight: 25 lbs.



Part No.	Description	1	10
292066CH	ATX full tower .....	<del>\$49.95</del> \$33.39	\$30.34

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Day or Night**

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isobar®

## Surge Protectors



139686CH



74544CH



19001CH

- Up to \$50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!
- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- IsoTel model has dual RJ11 jacks for complete modem/fax surge protection
- 4 & 6-outlet protectors: 6' cord; 8 and 12-outlet protectors: 12' cord
- UL 1449 and 1283 listed • Lifetime warranty



### Isobar Premium 19" Rack Mount Surge Protector

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
139686CH	IBAR12RM	750	12 outlet, 2 isolated filters	4.7 ...	\$119.95	\$107.99

### Isobar Premium Surge Protectors

18981CH	ISOBAR 4	2200	4 outlet, 2 isolated filters	2.4 .....	\$49.95	\$44.95
74544CH	ISOBAR 6	2350	6 outlet, 3 isolated filters	2.7 .....	\$4.95	\$4.95

### Isobar Ultra Premium Surge Protector

19001CH	ISOBAR 8U	2350	8 outlet, 4 isolated filters	3.5 .....	\$69.95	\$62.95
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## Standard Surge Protectors



168954CH

124337CH

Economical and effective spike and noise suppression with diagnostic LEDs.

- 168954CH:** • \$5,000 Ultimate Lifetime Insurance
- Up to 27,000 amp spikes • Weight: 1.2 lbs.
- 124337CH:** • \$35,000 Ultimate Lifetime Insurance
- Up to 42,000 amp spikes • Weight: 1.6 lbs.

Part No.	Product No.	Joules	1	10
168954CH	Striker 7	480 .....	\$8.95	\$8.49
124337CH	Super 7	1402 .....	17.95	16.26

## 6-Outlet Surge Protector

- Metal
- Max. spike current: 4500 amps, 50 joules
- 3-prong, 4' power cord
- Size: 12.3"L x 2.4"W x 1.3"H
- Weight: 1.5 lbs.



Part No.	Description	1	10	100
20175CH	Metal pwr strip .....	\$9.85	\$8.85	\$7.85

## 6-Outlet Surge Protector

- Standard 6-outlet surge suppressor
- Heavy-duty power cord (14AWG x 3)
- RESET/OFF switch with built-in 15A circuit breaker • Clamping voltage: 400V
- Max. surge dissipation: 900 joules
- Max. surge voltage: 6500V
- Max. spike current: 4500A
- Weight: 0.9 lbs.



Part No.	Description	1	10	100
216485CH	Surge suppressor .....	\$6.95	\$6.25	\$5.59

## Compact Surge Protector for Notebook Computers

- Single 3-prong receptacle outlet with telephone modem protection
- 3-prong wall mount type
- 210 joule rating
- Surge LED indicator
- RFI noise blocker
- Size: 2.3"W x 1.3"D x 3.3"H



SL WABER®

Part No.	Description	1	10	25
206279CH	Outlet protector .....	\$6.95	\$6.25	\$5.59



## Battery-Backed UPS System

- Protects your PC, fax/modem and all peripherals against all types of power problems
- Automatic system shutdown with free PowerAlert software for 500VA and 700VA
- Up to \$25,000 Ultimate Lifetime Insurance for connected equipment
- Up to 45 minutes runtime
- Weight: 16.0 lbs.
- 6-outlets, RJ11 for fax/modem protection



Part No.	Product No.	Description	1	10
185130CH	IO500	500VA, 6 outlets	\$120.99	\$112.89



## Integrated Wall Plate Surge Protectors

- \$5,000 surge equipment guarantee
- Safe-operation indicator lights
- 2 outlets
- Noise-filter
- UL/CUL approved
- Size: 6.9"W x 1.0"D x 10.8"H
- Weight: 0.7 lbs.



- 235002CH:** Satellite/Cable TV protection
- Cable ready • 670 joules
- Includes:** 6-foot coaxial cable
- 234991CH:** Modem/Phone/Fax protection
- Internet ready • 410 joules
- Includes:** 6-foot phone line cord



Part No.	Product No.	1	6	12
235002CH	SPC300 .....	\$5.95	\$5.45	\$4.95
234991CH	SPT300 .....	5.95	5.45	4.95

## Power-Strip-Saver Single Outlet



Before 4 Outlets Blocked After Every Outlet is Usable

Get full use of your power strips and UPS outlets with our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.

- Length: 1 ft. • Cord type: SVT

Part No.	Description	1	10	100
199777CH	AC power cord (black)	\$1.69	\$1.55	\$1.39
208338CH	AC power cord (beige)	1.69	1.45	1.09

## "Y" Power Strip Saver Double Outlet

Get full use of your power strips and UPS outlets with the "Y" power strip saver. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.



Part No.	Description	1	10	100
208346CH	Power strip saver .....	\$2.89	\$2.75	\$2.59

## 16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.

- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/ VGA/FDC/HDC, game and most I/O
- Control card installs in your PC w/ four external slots
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/N 78318CH & P/N 78326CH, pg 105)
- Size: 9.5"L x 6.8"W x 1.0"H • Weight: 5.5 lbs.
- One-year warranty

**System requirements:** IBM PC/XT and higher comp.

Blue Part No. = Limited Quantity Available

Part No.	Description	1	10
131238CH	PC slot extender unit .....	\$176.15	\$160.15

## LAN Tester Tool Kit For RJ11, RJ45, USB and BNC

This tester offers simple and easy operation, compatible with RJ11, RJ45, USB, and BNC wiring system; you can verify the condition and status before or after installation within two seconds. The kit includes punchdown tools, crimper tool, and cable tester.



- Shield/ground and open/short wire test
- Connected wire & crossover/wrong connection display
- Ethernet 10Base2/5, cable modem, CATV termination value detection

Blue Part No. = Limited Quantity Available

Lower \$\$\$

Part No.	Description	1	10
249252CH	LAN tester kit .....	\$99.95	\$84.95
198791CH	9V battery .....	2.85	2.55

# DC-to-AC Inverters and DC-to-DC Converter

## 150 & 270-Watt DC-to-AC Inverters



277181CH

- Input voltage: 10-15VDC
- Output voltage: 110VAC @ 60Hz
- Peak power surge capable
- Overload & thermal protection
- Battery low shutdown • Weight: 1.3 lbs.

277181CH: Size: 4.8"L x 2.9"W x 1.8"H

202016CH: Size: 9.3"L x 4.1"W x 2.2"H

- Auto adapter and battery clips

Part No.	Description	1	10	25
277181CH	150W auto plug .....	\$28.95	\$27.49	\$26.15
202016CH	270W auto/battery clip ..	49.99	44.99	40.49

202016CH



**SALE**



## 400-Watt DC-to-AC Inverter

Exclusive twin circuit design of dual high-output transformers provides 30% more power. MOSFET technology transistors with split design for cooler internal operating temperature. Outboard mounted replaceable dual 25AMP spade-type fuses. Dual grounded standard 110VAC receptacles. Includes: 12VDC cigarette light accessory plug, heavy-duty cable clamps, and spare 25A spade fuse.

- Input: 10-15VDC
- Max. continuous power: 400W
- Surge capacity (peak power): 800W
- 90% max. efficiency • No load draw: 0.3A
- Size: 6.4"L x 6.1"W x 2.1"H • Weight: 2.4 lbs.

Part No.	Product No.	1	10	25
249164CH	VEC031POB .....	\$57.49	\$54.65	\$51.89



## DC-to-DC Power Converter

A high quality 1000mA regulated DC adapter with the ability to convert power from your cigarette lighter plug in 1.5V increments from 1.5V to 9.0V. You may choose from a full range of universal plugs (2.1mm, 2.5mm jack, 1/8" jack & 9V battery snaps) and output polarity (center + or -). Perfect for cassette players, CD players, radios, mini TV's and many other battery-run appliances.

- Two DC output cigarette lighter outlets
- Built-in 10A mini blade fuse on plug

Part No.	Description	1	10
218819CH	DC-to-DC converter .... <del>\$11.15</del>	\$9.39	\$8.55
218801CH	10' extension cord .....	5.15	4.63



218819CH

**SALE**

## 75-Watt DC-AC Inverter

- 75 watts continuous power
- Peak surge power: 200W
- AC output voltage: 115VAC
- AC output frequency: 60Hz
- DC input voltage range: 10 - 15VDC
- Auto reset short circuit protection
- Overload protection/low battery alarm/low battery shutdown
- Single AC receptacle
- Optimum efficiency: 90%



Part No	Description	Size	Price
307791CH	75W inverter	4.8"L x 1.6"L x 2.4"H .....	\$26.95

## 150-Watt DC-AC Inverter

- 150 watts continuous power
- Peak surge power: 450W
- AC output volt.: 110V ±5VAC
- AC output frequency: 60Hz
- DC input voltage range: 10 - 15VDC
- Auto reset short circuit protection
- Overload protection/low battery alarm/low battery shutdown
- Single AC receptacle
- Optimum efficiency: 90%
- Built-in thermal cooling fan



Part No	Description	Size	Price
307811CH	150W inverter	5.0"L x 1.9"W x 2.9"H .....	\$34.95

# PC Power Supplies

## 150 to 400-Watt PC Power Supplies



201435CH



202788CH



196189CH



172822CH

**SALE**

**Quantity SAVE**

### ATX Power Supplies

Part Number	Mfr.	Product Number	Power (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector/Cord)	Output Conn. (Mating Conn.)	Certification	Size (L" x W" x H")	Wt. (lbs.)	Pricing		
201435CH	Xtreme Power	EPA400*	400	+3.3/33, +5/45, +12/15, +5VSB/1, -5/1, -12/1	115/230 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV/CE	5.6 x 5.9 x 3.4	5.0	\$55.95 <del>\$49.99</del>	\$50.36	\$45.32
155539CH	American Media	JE2033†	300	+3.3/14, +5/30, +12/8, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX-13	UL/CSA/TUV	5.9 X 5.5 X 3.4	3.7	60.45 <del>\$69.95</del>	54.96	49.96
155811CH	—	JE5300	300	+3.3/14, +5/25, +12/12, +5VSB/0.8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.9 x 5.5 x 3.2	4.1	57.55 <del>\$69.95</del>	52.28	47.53
308814CH	Powmax	LP6100D	400	+3.3/28, +5/30, +12/25, +5VSB/2, -5/0.3, -12/0.8, +5VSB/2	115/230 @ 60 switchable	3-prong AC receptacle w/ 6' power cord	ATX	UL/CUL/TUV/CE	5.9 x 5.6 x 3.4	3.5	54.95	52.20	49.59
319994CH	3Y Power Technology	AP-1250-1112	250	+3.3/20, +5/25, +12/12, +5VSB/3, -5/5, -12/0.5	100-240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CH, pg 180)	ATX	UL/CUL/TUV/CE	7.6 x 4.0 x 2.6	2.9	39.19	37.25	35.39
152194CH	American Media	JE2031	250	+3.3/14, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	6.0 x 5.5 x 3.4	3.5	44.95 <del>\$49.95</del>	40.45	36.39
312872CH	PC Power	STD-250 ATX	250	+3.3/16, +5/25, +12/13, +5VSB/2, -5/0.3, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CULCE	6.0 x 5.6 x 3.4	3.5	17.65	16.79	15.95
152514CH	High Power	JE8250	250	+3.3/16, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.3	44.95	40.45	36.39
202788CH	Enhance	SFX2015*	150	+3.3/7, +5/12, +12/5, +5VSB/0.8, -5/0.2, -12/0.3	115/240 @ 47-63 switchable	3-prong AC receptacle (P/N 38050CH, pg 180)	ATX	UL/CUL/TUV/CE	5.9 x 3.6 x 3.4	2.1	29.95	25.46	19.09
196189CH	Emacs	MPW-6150F*	150	+3.3/6, +5/10, +12/6, +5VSB/0.72, -5/0.2, -12/1	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CH, pg 180)	ATX	UL/CUL/TUV/CE	7.5 x 4.0 x 1.6	2.5	34.95	31.45	27.85

### AT Power Supplies

132185CH	APS	JE1035	300	+3.3/28, +5/30, +12/10, -5/1, -12/1	110/220 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	4.7	\$84.99	\$77.35	\$70.29
233525CH	Sparkle Power	SPI-230G	230	+5/23, +12/9, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CH, pg 180)	AT	UL/CSA/TUV	5.9 x 5.5 x 3.4	2.0	24.95	22.45	20.19
172822CH	Mean Well	AA-230*	200	+5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	AT	CSA/TUV/CE	6.0 x 4.6 x 3.4	2.6	49.95	44.96	40.46

\* See photo above

† Pentium 4 rated

• Blue Part No. = Limited Quantity Available

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# Keyboards, Keypads & Mice

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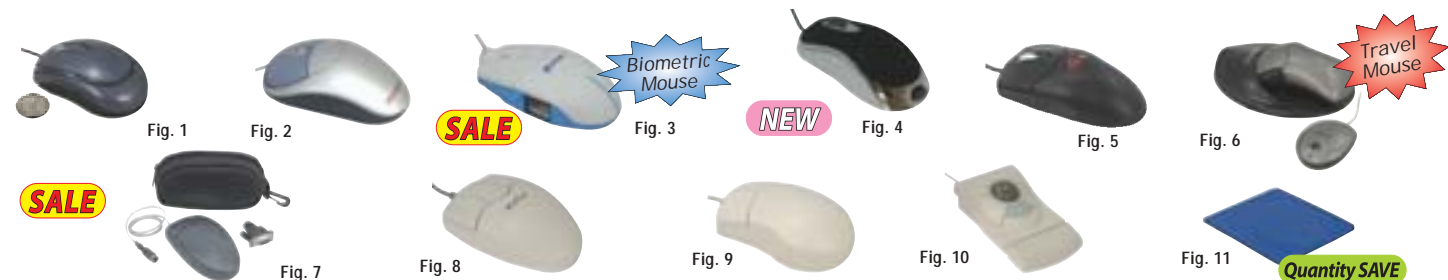


## Keyboards

Part No.	Mfr.	Product No.	Interface	Description	Fig.	Size (L"xW"xH")	Wt. (lbs.)	1	10	25
319636CH	IONE	Scorpius 83	PS/2	83-key tactile compact keyboard	1	12.8 x 6.2 x 1.0	1.8	\$40.15	\$38.15	\$36.25
311183CH	—	HMB-631PUS	PS/2	84-key soft touch mini keyboard w/ track point mouse	2	12.3x6.0x1.2	—	46.49	44.15	41.95
114868CH	—	MCK-84SX	5-pin DIN	84-key tactile keyboard, Windows 95 compatible	3	12.8x6.6x1.0	—	49.95	44.95	38.95
211756CH	—	WK-540	5-pin DIN	88/89-key soft touch keyboard w/ touchpad, windows compatible	4	11.4x8.5x1.2	2.3	59.95	53.95	48.95
191530CH	COMPAQ	1PRT235BT	PS/2	101-key tactile keyboard w/ separate cursor and numeric keys, 12 function keys, recommended adapter P/N 85500 or 159089	5	18.3x6.5x1.3	3.6	18.95	16.95	14.95
308793CH	IONE	Scorpius-2K	PS/2	103-key soft touch keyboard, Windows® 98SE/2000/ME/XP comp.	6	15.9x6.5x1.3	—	39.95	35.95	32.49
319661CH	IONE	Gemini-M1	PS/2	104-key soft touch wireless keyboard w/ 12 multimedia and function keys and 2-button optical scroll mouse. 5AA batteries included	7	17.6 x 7.5 x 1.6	2.2	28.49	26.99	25.69
173649CH	—	SUN 3201256-1	PS/2	104-key tactile Keyboard w/ 12 function keys, separate arrow & numeric keys	8	18.2x7.0x1.5	2.7	12.95	11.65	8.55
128718CH	IONE	Scorpius 35PU/NET	PS/2	104-key tactile keyboard w/ built-in jumbo trackball. N-key rollover. Includes software and USB adapter	9	19.0x16.8x1.4	3.7	99.95	94.75	89.55
308101CH	Labtech	967360-0403	PS/2	104-key RF Keyboard and 3-button optical scroll mouse. Multimedia hot-keys. Includes installation guide and 4AA batteries	10	18.0x8.7x1.6	4.5	37.25	35.49	33.69
233381CH	—	AK7500	PS/2	104/105-key RF wireless keyboard and mouse. w/ 16 internet/media hot keys. Includes 4 AA batteries and software.	11	18 x 7.8 x 1.7	3.2	24.95	23.69	22.49
263521CH	—	RT3604	USB	104-key soft touch USB keyboard w/ 12 function keys, separate cursor and numeric keypad. Extra ports on side and rear.	12	18.6x7.8x3.8	3.8	16.25	15.45	14.65
268402CH	—	Dragon K/B	PS/2	105-key Soft Touch Multimedia enhanced keyboard w/ 21 hot keys for email/multimedia & sound, 12-function keys, separate cursor & numeric keypad	13	17.5x6.3x1.5	1.8	12.19	10.95	9.89
319812CH	PC Concepts	ICIA	PS/2	107-key soft-touch keyboard w/ programmable function keys for internet/utility/office, and multimedia. Software included	14	17.5 x 5.7 x 0.8	1.8	13.79	12.41	11.79
235563CH	—	S20312	PS/2	Illuminated Keyboard w/ 12-function keys, wake-up button, on/off switch, and separate keypad	15	15.3 x 5.9 x 1.3	1.7	56.75	51.57	46.88
354950CH	COMPAQ	KB-9965	PS/2	107-key soft-touch keyboard w/ 12 function keys	16	18.5 x 6.5 x 1.4	1.3	17.99	16.19	15.37

## Keypads

265375CH	QTRONIX	Scorpius 22RB	Serial	22-key Serial tactile keypad w/ 2-key rollover and auto repeat function. Includes manual and drivers	17	6.2x4.2x1.3	0.8	\$39.95	\$35.95	\$32.49
319054CH	—	KB22APB	PS/2	22-key PS/2 tactile keypad. Includes PS/2 to AT adapter	18	—	—	33.69	31.99	30.39



Part No.	Mfr.	Product No.	Type	Interface	Description	Fig.	Size (L" x W" x H")	1	10	25
265471CH	—	—	Optical	USB	Mini optical mouse	1	3.7 x 2.2 x 1.3	\$17.89	\$16.99	\$16.15
199591CH	Qtronix	MSL7/PS2	Optical	USB	3-button w/ optical wheel	2	3.9 x 2.3 x 1.5	29.95	26.95	24.25
262625CH	Nitgen	—	Optical	USB	EyeD USB OptiMouse w/ biometric recognition software	3	5.1 x 2.5 x 1.5	115.95	110.19	99.99
354976CH	—	C1-8B-2061-BB	Optical	USB/PS/2	3-button with optical wheel with USB to PS/2 adapter	4	4.2 x 2.1 x 1.6	11.29	10.75	10.19
277245CH	Soyo	Dragon Mouse	Optical	PS/2	3-button opto-mechanical	5	4.7 x 2.4 x 1.6	7.35	6.65	5.95
265447CH	Memorex	32022378	Optical	PS/2	5-button wireless optical ScrollPro w/ PS/2 to USB adapter	6	4.9 x 3.0 x 1.6	29.95	28.45	27.29
213330CH	Shape	88803	Mechanical ball	PS/2	2-button retractable cord travel mouse	7	4.5 x 2.4 x 1.1	9.95	7.39	6.75
288972CH	Rottek	K3P400A	Mechanical ball	PS/2	3-button PS/2	8	4.2 x 2.5 x 1.3	4.95	4.49	4.05
283223CH	—	—	Mechanical ball	DB9 female	3-button serial	9	4.3 x 2.6 x 1.6	6.15	5.55	4.99
305082CH	IONE	Libra-90	Trackball	PS/2	PS/2 Trackball w/ USB adapter	10	5.6 x 4.7 x 1.9	29.95	26.95	24.25
121363CH	—	—	—	—	Mini mouse pad	11	7.0"L x 5.5"W	3.79	3.19	2.35

## 10" B&W Security Monitor w/ Audio

- EIA format
- 9" viewable screen
- Resolution: 700 line
- Push down front panel for volume and power switch
- BNC jacks for audio/video input
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.



Includes: Manual

Part No.	Description	1	10
253067CH	10" black & white monitor ..	\$109.05	\$89.95

## 5.6" Color TFT Monitor

NTSC Format

- TFT color LCD display
- 224 x 640 pixel display resolution
- Built-in 1 watt speaker
- Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.1"W x 1.2"D x 4.8"H
- Weight: 2.6 lbs.



Includes: RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

Part No.	Description	1	10
201702CH	5.6" TFT color monitor .....	\$279.95	\$259.95

## 4" TFT LCD Monitor

NTSC Format

- TFT color LCD
- Resolution 234 x 383dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position Molex-type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.



Part No.	Description	1	10
172742CH	4" color LCD monitor .....	\$159.95	\$149.95

## 15" SVGA Color Monitor✦

- 0.28mm dot pitch
- Resolution: 1280 x 1024 @ 60Hz
- Digital panel control
- Input voltage: 100-240VAC, 50/60Hz (auto switching)
- Power, contrast, brightness, horizontal/vertical size position, recall & trapezoid front control
- HDDB15 male connector • UL/CSA/TUV approved
- Size: 14.5"W x 16"D x 14.6"H
- Dimensional weight: 70 lbs.



Includes: Power cable, tilt and swivel base

✦ Refurbished = Backed by Jameco

Part No.	Description	1	10
153306CH	13.5" monitor viewable ✦ .....	\$99.95	\$89.95

## 14" SVGA Color Monitor✦

- 13" diagonal view
- 0.28mm dot pitch
- HDDB15 male connector
- Power, contrast, brightness, horizontal/vertical position, recall & trapezoid knobs
- Resolution: 1152 x 864 @ 60Hz
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 14.2"W x 14.6"D x 13.5"H
- Dimensional weight: 40 lbs.



Includes: Power cable, tilt and swivel base

✦ Refurbished = Backed by Jameco

Part No.	Description	1	10
174537CH	13" monitor viewable ✦ .....	\$69.99	\$64.99

## AverKey Pro PC-to-TV Converter Box

- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Weight: 2.2 lbs. • Two-year warranty



System requirements: VGA-based PC, DOS 3.0 or higher, 640KB RAM or larger

Includes: PC-to-TV converter, adapter, cables & manual

Part No.	Description	1	10
167193CH	Video signal pro .....	\$89.95	\$79.95



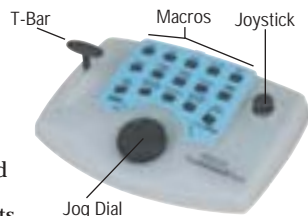
## Pro-Video Editing Controller at Breakthrough Price

CommandPost is a pro-quality video-editing controller for your favorite video/multimedia applications at a new breakthrough special purchase price. Working with your favorite video/multimedia applications has never been easier or faster. Now the most popular controls such as jog wheel, fader, etc., from professional non-linear editors, DVEs and DDRs are brought to your desktop. Includes a free copy of VideoWave Version 4.0 video editing software plus templates for most popular video and graphics applications, including Videonics Effetto Pronto, Apple iMovie, Apple Final Cut Pro, Adobe Premiere, Adobe After Effects, and Digital Origin EditDV.

- Concentric jog/shuttle control • Centering joystick with pushbutton
- Internally illuminated for readability in darkened edit rooms
- Fader arm, 15 tactile push-button switches
- Supports standard or user-defined keysets
- Easy assignment of control sequences and keyset names

System requirements: USB 1.1 compliant PC: Windows® 98 or 2000, Pentium® 133 or higher, 5MB RAM minimum, 8MB minimum hard disk space. MAC: O.S. 8.6 or higher, Power PC, 10MB of RAM minimum, 5MB minimum hard disk space (MAC software available at [www.Jameco.com](http://www.Jameco.com))

Part No.	Description	Size	Weight	1	10
220329CH	CommandPost ✦	1.5"H x 10.0"W x 7.0"D	2.0 lbs. ....	\$19.99	\$15.99



✦ Blue Part No. = Limited Quantity Available

## XBOB-NC Video Text Module

XBOB integrates Decade's third-generation OSD technology into a convenient plug & play format. The command set is nearly identical to that of our popular BOB-3 modules (pg 205), and XBOB includes all of the optional circuitry described in the BOB-3 Application Guide. XBOB lets your PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable character patterns, XBOB supports pseudo-graphics and multiple languages. XBOB generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control XBOB through a fast RS-232 data link, much like a simple serial printer.

**SALE**



- Higher display density; 40x17 characters (680 max.)
- 254 ROM character patterns plus 63 user-definable RAM characters • Character size control
- Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)
- Faster & more reliable host communication
- Stand-alone operation, for simple source ID or fixed reticle applications
- Improved automatic video mode control

Part No.	Description	1	10
283768CH	XBOB video text module .....	\$189.95	\$179.99
237243CH	9VDC power supply .....	3.79	3.45
283776CH	Serial cable .....	9.95	8.95

## BOB-3 Video Text Module



283733CH

BOB-3 is Decade's third-generation low-cost video text overlay module. BOB-3 lets your microcontroller or PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable characters, BOB-3 supports pseudo-graphics and multiple languages. BOB-3 generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control BOB-3 through a fast RS-232 style data link, much like a simple serial printer. BOB-3 is compatible with most microcontroller chips and modules, including the BASIC Stamp.

- Higher display density; 40x17 characters (680 max.)
- Faster & more reliable host communication
- Software-controlled digital outputs (6)
- Improved automatic video mode control
- Stand-alone operation, for simple source ID or fixed
- Character size control reticle applications

283733CH:

- 254 ROM character patterns plus 63 user-definable RAM characters • Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)

162051CH:

- Displays up to 308 characters (11 lines of 28)
- 12 x 18 pixel character pattern

Part No.	Description	1	10
283733CH	BOB-3 video text module .....	\$99.95	\$94.95
162051CH	BOB-2 video text module .....	69.95	62.95

## 14" Color CCTV Monitor

- NTSC/PAL switchable
- Operating frequency: EIA - 15750Hz/60Hz; CCIR: 15625Hz/60Hz
- Input voltage: 100 - 240VAC @ 50/60Hz
- Input signal: CVBS - 1Vp-p (typical); Y/C separation - 1Vp-p
- Input impedance: hi/lo impedance (switchable)
- Video in/out channel (BNC): 2 BNC connectors (CVBS in/out); 2 4-pin mini DIN (YC in / YC out)
- Audio in/out channel: 2 inputs / 2 outputs
- Front panel control: power on/off; contrast, brightness, color, tint, sharpness, volume (AV / YC) switches
- CRT: 14" diagonal
- CRT dot pitch: 0.63mm
- Resolution: >420 lines
- Power consumption: 70W
- Size: 13.8"W x 14.4"D x 12.6"H • Weight: 31.9 lbs.



**NEW**

Part No.	Product No.	1	10
320119CH	15-MC14A	\$277.39	\$249.65

## Black & White CCD Camera with 6" Monitor

### Camera: EIA Format

- 512(H) x 492(V)
- 1/3" CCD image sensor
- 380 TV line res.
- 6 IR LED light for view in the dark application
- 15.734kHz horizontal synch. frequency
- 2:1 interlace scanning system
- 1/100,000 second electronic shutter
- 3.6mm lens with F2.0 • S/N ratio: 48dB
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p, 50Ω maximum • 0 lux at 2M
- BNC connector for video & RCA connector for audio
- Power supply: 12-15V @ 130mA • FOV: 92°
- Size: 2.2"W x 2.8"D x 2.1"H

**Includes:** Camera bracket

### Monitor: EIA Format

- 6" 2-channel flat screen monochrome monitor
- Vertical hold, brightness and contrast adjustment knobs at rear of monitor
- Size: 6.7"W x 7.2"D x 5.2"H • Weight: 7.7 lbs.

**Includes:** 20M audio/video cable, manual and 15V @ 1A center positive power supply

Part No.	Description	1	10
170616CH	Camera w/ monitor	\$169.95	\$149.95

## Mini Dome Color Camera

### NTSC Format

- Perfect for ceilings
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- S/N ratio: 46dB
- 15.73kHz horizontal synch. frequency
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0 • Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996CH, pg 174)
- 2 lux/F2.0 • FOV: 92° • Size: 3.5"Dia. x 2.3"H

**Includes:** Mounting hardware

Part No.	Description	1	10
171037CH	Mini-dome camera	\$145.95	\$129.95



## Color Camera

- 1/3" Panasonic CCD image sensor
- Image size: 4.82mm (H) x 3.64mm (V)
- Furnished lens: 8mm
- More than 380TV lines horizontal resolution
- 15.734kHz synch. freq.
- Scanning system: 2:1 interlace
- S/N ratio: more than 46dB
- BNC connector for video • FOV: 42.6°
- Video output: 1Vp-p; 75Ω • 1.0 lux / F1.4
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 0.9 lbs.
- 512(H) x 492(V) NTSC signal format
- Auto iris: DC driver / video driver switchable

**Requires:** 12VDC @ 140mA power supply (recommend P/N 162996CH, pg 174)

Part No.	Description	1	10
171248CH	Color CCD camera	\$209.95	\$189.95



## Night Vision Infrared Lighted Camera

### EIA Format

- Adjustable camera lens
- Auto iris controlled
- Built-in voltage regulator
- Horizontal synch. frequency: 15.734kHz
- 6 infrared LEDs for night vision
- Scanning system: 2:1 interlace
- Video output: 1Vp-p; 75Ω • Lens: 3.6mm
- Audio output: 2Vp-p max. • 380 TV line resolution
- FOV: 92° • 0.1 lux with F2.0
- Matching conn.: RG59 BNC (P/N 71271CH, pg 117)
- Size: 2.9"L x 2.0"W x 2.0"H • Weight: 1.2 lbs.

**Includes:** 12VDC @ 500mA power supply and wall mounting bracket

Part No.	Description	1	10
150404CH	Infrared lighted camera	\$119.95	\$109.95



## Black and White Camera with 8mm Lens

- 1/3" CCD image sensor
- Horizontal res: 420TV lines
- Min. illumination: 0.1 lux
- Horizontal freq.: 15.734kHz
- 510(H) x 492(V) EIA signal format
- Vertical freq.: 60Hz
- Clock freq.: 19.0699MHz
- Scanning system: 2:1 interlace • S/N ratio: 48dB
- Electronic shutter: 1/100,000 sec.
- Auto iris lens: DC drive / AES / video drive
- Video out.: 1Vp-p, 75Ω
- Audio out.: 2Vp-p max., 50Ω
- Backlight compensation and auto gain control selectable
- Power requirements: 12VDC@100mA; 24VAC
- Size: 4.5"L x 2.0"W x 2.0"H • Weight: 0.8 lbs.

Part No.	Description	1	10
245041CH	Black & white CCD camera	\$99.95	\$89.95



## Mini Enclosed Color NTSC Camera

- 1/4" CCD Sensor
- 350 horizontal TV lines
- 1 lux/F2.0
- Electronic shutter: up to 1/120,000 sec.
- NTSC system w/ 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Signal to noise ratio: 48dB
- Lens: 3.7mm/F2.0
- Video output: 1Vp-p, 75Ω • FOV: 92°
- Size: (enclosure) 1.3"L x 1.1"W x 0.9"D
- Weight: 0.3 lbs. • Two-year warranty

**Requires:** 9VDC - 12VDC @ 500mA power supply (recommend P/N 100853CH, pg 175)

**Includes:** BNC/Power cable and mounting hardware

Part No.	Description	1	10
215423CH	Mini enclosed camera	\$129.95	\$119.95



## Color Interline Camera

### Water Resistant with Adjustable Mounting Bracket

- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity
- Video output: 1V p-p; 75Ω
- 6mm lens/F2.0
- S/N ratio: 40dB • FOV: 530
- Electronic shutter: 1/60 - 1/1,200 sec.
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply
- Size: 2.6"L x 0.9"Dia.

**Includes:** Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

Part No.	Description	1	10
185017CH	Color camera	\$99.95	\$89.95



## SONY Color CCD Camera

### Sony Chipset

- 1/4" Sony super HAD CCD sensor
- NTSC system with 510(H) x 492(V)
- Furnished mini lens: 3.6mm
- Minimum illumination: 0.5 lux @ F2.0
- Signal to noise ratio: >48dB
- 330 TV lines
- Supports these functions: auto electronic shutter (AES), auto iris control (AIC), auto gain control (AGC), auto white balance (AWB), back light compensation (BLC) and flicker less (FL)
- Video drive iris control; high/low switchable auto gain control; on/off backlight compensation
- Internal, negative synchronous system
- Video output: 1Vp-p; 75Ω

**Requires:** 12VDC @ 120mA power supply (recommend P/N 100095CH, pg 175)

**Includes:** Power/signal cable & mounting hardware

Part No.	Description	1	10
213436CH	Enclosed color camera	\$179.95	\$161.95



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Our enhanced website offers more products. Find it quickly and order it easily!



## WaterProof Tube Style IR Color Camera

### NTSC Format

- For indoor and outdoor use
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 420 horizontal line resolution
- 59.94Hz vertical frequency
- Scanning system: 2:1 interlace
- 0 lux w/ 20 IR LEDs
- Internal synchronization
- S/N ratio: >48dB
- Up to 1/100,00 sec. electronic shutter
- Auto white balance and gain control
- 880 ~ 940nm infrared wavelength
- Video output: 1Vp-p, 75Ω
- 4.3mm lens with F1.8
- Size: 2.1"Dia x 3.8"L

Requires: 12VDC @ 160mA power supply (recommend P/N 162996CH, pg 174)

Includes: Mounting hardware

Part No.	Product No.	1	10
319901CH	15-CM25WM	\$189.05	\$184.29



**NEW**

## 2.4GHz Wireless Color Dome Camera

### NTSC Format

- 1/4" CCD image sensor
- 512(H) x 492(V)
- 380 horizontal line resolution
- 1 lux with F2.0
- Scanning system: 2:1 interlace
- S/N ratio: 48dB
- 60Hz vertical frequency
- Up to 1/120,000 second electronic shutter
- 3.6mm lens with F2.0
- Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 300mA
- Size: 3.4"Dia x 2.3"H

Includes: 12VDC @ 300mA power supply and mounting hardware

Part No.	Product No.	1	10
319855CH	15-2400CTD	\$212.25	\$191.15



**NEW**

## 2.4GHz Wireless Weatherproof Color Camera w/ PIR

### NTSC format

- For indoor and outdoor use
- 1/4" CCD image sensor
- 380 horizontal line resolution
- 3 lux with F2.0
- 0.5lux with F1.2
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p max
- Transmitter output power: 10mW
- Output impedance: 50Ω typical
- Pulse counter w/ automatic reset
- Size: 4.2"W x 5.0"D x 4.8"H

Includes: 12VDC @ 500mA power supply and mounting hardware

Part No.	Product No.	1	10
319871CH	15-2400CTH	\$236.55	\$212.89



**NEW**

## Mini Wireless Color Camera

Now you can place a color video camera with sound almost anywhere! This super-small (1" x 3/4" by 7/8") 1/4 ounce, 3 Lux wireless camera and receiver combo delivers sharp, full-motion video images at 380 lines of resolution. With its 150-foot (unobstructed) range, light weight, and 9-volt battery power, you can now add video capability to a world of hobby applications.

Part No.	Description	1	10
249025CH	Wireless color camera	\$89.95	\$80.95



## 2.4GHz Wireless Audio/Video Transmitter

- Frequency range: 2413MHz to 2470MHz
- Impedance: 50Ω
- Output power: 1 watt
- Video input: 1 Vp-p
- Audio input: 2 Vp-p
- Size: 2.4"L x 1.9"W x 1.4"H

Includes: 12VDC @ 1A wall adapter, RCA patch cable, antenna and mounting hardware

### 179864CH:

- For use with 2.4GHz cameras, transmitters and receivers
- Gain: 3dB; unidirectional

Part No.	Description	1	10
289852CH	Wireless audio/video tran. ...	\$199.95	\$179.95
179864CH	2.4GHz SMA RF antenna	15.15	13.65
179872CH	Wireless extension cable	10.99	9.89



## 4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

Make your camera wireless up to 492 feet!

- Transmission range: 492' (150M outdoors); 164' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

### Receiver:

- Non-volatile memory protects system set-up from power loss
- Video loss detection and freeze channel
- Mute and alarm trigger port
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H
- Weight: 1.8 lbs.

Includes: RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)

Part No.	Description	1	10
192858CH	4-channel transmitter	\$94.45	\$85.05
192866CH	4-channel receiver	124.95	112.95



## 4-Channel 2.4GHz Wireless Audio/Video Transmitter System

CCIR, NTSC, PAL, EIA Format

- ISM Band: 2.413 - 2.470GHz
- Four selectable transmitter and receiver channels
- Antenna mode: dipole (omnidirectional)
- Impedance: 50Ω typical
- Video input: 1 Vp-p composite
- Audio input: 2Vp-p max.
- Weight: 3.2 lbs.

Includes: Two 9VDC @ 300mA with 1.3mm x 3.5mm center positive plug, and two 2.5mm male to RCA patch cables

Part No.	Description	1	10
265308CH	4-ch. wireless system	\$149.95	\$134.95



## SONY® Black & White Low-Light Camera

### Sony Chipset

- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Temp. tolerance: -5°C to 40°C
- Composite output with 420 line resolution
- Shutter speed: 1/60 - 1/1000
- FOV: 92.6°
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H
- One-year warranty

Part No.	Description	1	10	25
150931CH	Camera board	\$71.79	\$64.79	\$58.15
159071CH	8mm lens 38.6'	17.95	17.10	16.25



## Black & White Camera

### EIA Format

- 1/3" CCD image sensor
- 510(H) x 492(V)
- Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- Video output: 1Vp-p, composite video 75Ω
- Power supply: 12VDC (recommend P/N 162996CH, pg 174)
- Size: 1.3"L x 1.3"W x 1.2"H
- S/N ratio: 46dB
- Power consumption: 110mA
- FOV: 92°
- Electronic shutter: 1/125,000 sec. (linear)

Part No.	Description	1	10
171029CH	Camera board	\$44.95	\$40.45



## Color CMOS Camera Board

### NTSC Format

- 1/3" image sensor
- 5.0 CMOS lux
- FOV: 92°
- 3.6mm lens/F2.0
- 330 TV lines
- Low power consumption
- Automatic exposure, gain and white balance
- Size: 1.0"L x 0.9"W x 1.1"H

Part No.	Description	1	10
171011CH	Camera board	\$77.65	\$69.89



## We're Listening to What You Need

Our goal is to provide you with more of what you want. Let us know how we can better serve your electronics needs. Please send requests to [info@jameco.com](mailto:info@jameco.com).

## Digital Color Quad Processor

A fully digital color quad processor with 2 x 2 zoom for VCR playback, built-in OSD time generator (Day/Time/Title on-screen), auto video signal detection and adjustment on each camera, and monitor output quad/full screen/sequential switcher.



**NEW**

- NTSC format
- 60 fields / sec. display rate
- 4 video input channel
- Video output: 1Vp-p, 75Ω (selectable at full screen or quad switched)
- 4 alarm inputs, 1 alarm output (NO/NC)
- 1024 x 512 digital memory
- 1 to 99 seconds switching interval
- 6 BNC connectors at rear panel
- Size: 8.5"W x 1.8"H x 8.0"D
- Weight: 2.6 lbs.

**Includes:** 9VDC @ 800mA power supply, DB25 male to stripped and tinned cable, and manual

Part No.	Product No.	1	10
319935CH	15-QC42	\$242.25	\$218.05

## 4-Channel Digital Video Multiplex Recorder

Record and monitor your security surveillance system with this 4-channel digital video multiplex recorder. Connect 4 cameras to this recorder, attach a monitor for viewing features, and connect your PC through the RS-232 interface to operate the recorder. Attach a RJ-45 cable for network connection, and install 1 or 2 hard disk drives to the recorder.



- TCP/IP with client software web interface
- Conventional VCR back up, remote back-up using TCP/IP, or internal back-up
- RS-232C, RS-485, 4-alarm input, 1 relay output
- Pan, tilt, zoom, and focus camera control
- Plug and play

### Video I/F

- 4-channel input, 1Vp-p, 75Ω unbalanced BNC type connectors
- S/N ratio: >48dB • 480 TV lines
- 4 output (BNC/SVHS/VGA type)
- 16.7 million colors

### Monitoring Method

- Split screen (full or quad display), zoom, PIP, sequence
- Screen quality: full screen – 720(H) x 480(V) active pixels; ¼ screen – 360(H) x 240(V) active pixels

### Recording/Playback Function

- 30 frames/sec. maximum
- JPEG compressed picture
- Quad screen recording or field switcher method
- Real time/lapse/event record mode
- Search/still track play

**Includes:** remote control, 12VDC @ 4.16A power supply, manual and software in CD-ROM

Part No.	Product No.	1	10
320127CH	15-DVR04SAE-LAN	\$664.05	\$597.65

Need additional BNC or video cables? We have them. See pages 96-97 & 117.



## DigiVue™ Digital Surveillance System

This new high-speed PCI video capture card comes with 4-channel video and 1-channel audio input that provides superb digital images from multiple cameras and remote surveillance. Add up to 4 cards per system controlling up to 16 cameras.



- Input signal: 4 video, 1 audio synchronized mono (with sound card) • Time/date stamp
- Display: 1/4/9/16/full screen
- Display and record: 60 frames per second (per card)
- Record mode: event/continuous/scheduled
- Enhanced MPEG4 format • Size: 4.9"L x 3.6"H
- Color adjust: adjustable light, contrast, hue, saturation
- Resolution: 160 x 120 up to 640 x 240
- Multitask: monitoring, recording, PTZ control, remote, back-up
- Motion detection: 16 zone x multi area for each camera
- Storage: HDD, VDRAM, CD-RW, DAT, ZIP
- Support internet monitoring: client software, explorer, or windows media player

**Includes:** CD-ROM software and drivers

**Minimum system requirements:** Pentium® III/800MHz, 128 MDRAM, 32M AGP video card or above (recommend Pentium® 4/1.8GHz, 64M AGP video card)

Part No.	Product No.	1	4
262019CH	EDV-XVIEW4	\$237.55	\$225.95

## Audio/Video Adapters

### CAT 5 UTP

- Converts impedance of video/audio signals to 100Ω for transmission over CAT 5 UTP cable
- Supports both NTSC or PAL video signals
- Built-in impedance matching device and filter for video and audio signal transmission
- Use with existing premises wiring and wall jacks for easy and cost effective installation
- Video transmission distance: 1000' color/2000' B/W



210471CH

**210471CH/311124CH:** Signal pair: video (BNC), CAT pair 1 (RJ45)

**220880CH:** Signal pairs: video (BNC), CAT pair 4 (RJ45); audio 1 (RCA); CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)

**Includes:** 1 RCA to BNC adapter and 2 mounting screws

Part No.	Connector Type	1	10
210471CH	BNC/RJ45	\$28.45	\$25.60
311124CH	BNC/RJ45	19.35	18.35
220880CH	BNC/RCA/RJ45	42.95	38.66

### Cable Assembly (75Ω RG59/U BNC – BNC)

Part No.	Length	1	10	50	100
262730CH	25'	\$9.95	\$8.95	\$8.05	\$7.25
262748CH	50'	17.05	16.25	15.45	14.69
262764CH	100'	30.39	28.89	27.45	25.99



For additional BNC Cables see pages 97 & 117.

## ATEN SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210 feet away.

- Suitable for SVGA, VGA & multisync monitors
- 176866CH: 2-channel**
- 1 HDDB15 male connector from PC to box; 2 HDDB15 female connectors from box to monitors
- Size: 6.6"L x 3.3"W x 1.1"H • Weight: 1.4 lbs.
- 133866CH: 4-channel**
- Slide switch for video signal gain control
- Daisy chainable • One-year warranty
- Size: 8.8"L x 6.0"W x 1.9"H • Weight: 3.6 lbs.



176866CH



133866CH

**Includes:** Power adapter and manual

Part No.	Description	1	10
176866CH	2-ch. monitor splitter	\$49.95	\$44.95
133866CH	4-ch. monitor splitter	59.95	53.95

## Video RF Modulator w/ S-VHS Input

Designed to convert separate audio and video signals from various video components.

- RF outputs: 3 or 4 channel switch selectable
- RF output impedance: 75Ω
- Video input impedance: 75 or 1kΩ
- Audio input impedance: 13 +/-3kΩ
- TV to antenna insertion loss 50 – 806MHz: -2dB
- Video carrier output level: 69dBuV



**NEW**

Part No.	Product No.	Description	Price
319062CH	203-101	Video RF Modulator	\$14.95

## Audio Video Selectors

### 319151CH:

- Manual 4x1 audio/video selector with S-VHS inputs and integrated 3/4 channel RF modulator. Designed to convert separate audio and video signals into a single VHF-TV signal viewable on most TV sets



**NEW**

### 319142CH:

- Auto audio/video selector with S-VHS inputs. Automatically redirects signal to display active signal source. 12VDC@200mA power supply included

Part No.	Product No.	Size (WxDxH)	Price
319151CH	200-470	9.4" x 5.0" x 1.9"	\$34.95
319142CH	200-465	9.7" x 5.9" x 2.1"	54.95

## SMK RF Modulator

- Output frequency: NTSC Ch. 3/4, switch selectable
- 12VDC RF modulator
- Operating voltage: 12V@ 50mA max.
- Video modulation: 1.0V p-p
- RF output impedance: 75Ω (F type connector)
- Audio FM deviation: 1.4V p-p
- PC connections: solder tab connectors
- Size: 1.7"L x 1.7"W x 0.7"H
- Manufacturer No.: WMN2144-01



**SALE**

Part No.	Description	1	5	10
141639CH	RF modulator	\$2.49	\$2.29	\$2.09



## Mount your video camera almost anywhere

As steady as a tripod, the Window Camera Mount lets you anchor that video camera to any glass surface at any height.



Mount your video or CCTV camera on any window or other non-porous surface, and capture what you've never been able to before. This heavy-duty metal mounting bracket attaches securely to any glass surface with a strong lever-activated 3.25" neoprene suction cup. Mount your camera onto the tripod-style screw. Adjust to any position, and you're ready to shoot hands-free. It's perfect for temporary surveillance of your business or home. For cameras up to 3 lbs.

Part No.	Description	1	5
222746CH	CCTV camera window mount	\$33.19	\$29.87

**Mounts easily to your car window**

## Mini Indoor Pan & Tilt Mechanism

### Continuous Pan

- Automatic scanning: 0° – 355° angular travel; pan clockwise and counter-clockwise
- Manual tilt: 0° - 90°
- Pan speed: 5"/sec.
- Maximum load: 4.4 lbs.
- Power consumption: 1 watt
- Size: 2.5"Dia. x 2.4"H
- Warranty: 2 years continuous use • Weight: 0.4 lbs.



Camera not included

**Includes:** 24V @ 150mA power supply, wall mount bracket and mounting hardware

Part No.	Description	1	10
215407CH	Mini pan/tilt	\$49.95	\$44.95

## Outdoor Metal Camera Enclosures

- Plate glass: 3mm thick
- Outdoor use
- 170931CH: without heater**
- Clear window area: 2.5"W x 2.3"H
- Max. camera size: 4.0"L x 2.4"W x 2.4"H
- Size: 16.0"L x 4.9"W x 4.9"H • Weight: 2.8 lbs.
- 170940CH: w/ heater (keeps optics from fogging)**
- Clear window area: 3.5"W x 3.1"H
- Max. camera size: 6.5"L x 3.2"W x 3.2"H
- Size: 11.0"L x 3.6"W x 3.6"H • Weight: 6.8 lbs.



Part No.	Description	1	10
170931CH	Camera housing	\$28.45	\$26.55
170940CH	Camera housing w/ heater	62.95	59.89

## Indoor Metal Camera Enclosure

- Clear window area: 2.2"W x 1.8"H
- Maximum camera size: 7.1"L x 2.6"W x 2.4"H
- Overall size: 11.7"L x 3.1"W x 2.7"H • Weight: 1.5 lbs.



Part No.	Description	1	10
310691CH	Camera housing	\$27.49	\$26.15

## Camera Mounting Bracket

- Aluminum construction (white coated)
- Maximum load: 6.5lbs.
- Over all height: 5.1"
- Base diameter: 1.8"
- 360 degree tilt swivel
- 120 degree tilt angle
- Base mounted w/ 3 screws (included)



Part No.	Description	1	10
311191CH	15-B009	\$6.65	\$6.19

## Mounting Brackets for Enclosed Camera

- Material: plastic
- Base mounted w/ 3 screws
- Swivel angle: 360°
- Tilt angle: 90°
- For use w/ enclosed cameras (P/N 150404CH, pg 206)



Part No.	Max Load (lbs.)	Ht. (in.)	1	10
171002CH	11 lbs.	6.4	\$4.69	\$4.08
170982CH	6.6 lbs	2.0	5.49	4.94

## Heavy Duty Camera Mounting Bracket

- Steel construction (white coated)
- Maximum load: 22 lbs.
- Overall length: 11.2"
- Base size: 3.8"L x 33.3"W
- 360° swivel angle, 90° tilt angle



**NEW**

**Includes:** Base mounted w/ 3 screws

Part No.	Product No.	1	10
320151CH	15-B006	\$16.65	\$14.95

## Monitor/TV Wall Mount Bracket

- 95° swivel
- Assembly required
- Requires unit base to be mounted securely to wall stud
- Wall mount screws not included
- Supports up to 66 lbs. • Weight: 9.0 lbs.



**SALE**

Part No.	Description	1	10
181817CH	12"-18" TV wall mount	\$23.69	\$21.55

## Mini Alarm Siren

- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned
- Size: 2.8"Dia. x 2.5"L



Part No.	Description	1	10	50
148152CH	Alarm siren	\$8.95	\$7.99	\$6.35

## Save Big! Special Values!

New Lower Prices = Orange  
Sale Priced Items = Yellow  
Exceptional Quantity Discounts = Green

## EyeD Hamster USB Fingerprint Scanner

The EyeD Hamster fingerprint recognition tool for computers focuses on both security and convenience. This unit, which can be connected to the USB port of a computer and separate from the mouse, provides a simple, convenient and reliable security system instead of using passwords which are hard to remember or can be stolen. Applications such as computer networks, computer security, business IT solutions, E-commerce, banking and financial security and medical information systems are some of the environments where security plays an essential part.



- Assures computer security through fingerprint recognition
- Provide fast matching • USB interface
- Compact in size, takes up less than 3" of desk space

**SALE**

**Includes:** Installation manual and CD-ROM drivers

**System requirements:** Windows® 95/98/NT4.0/2000/ME/XP, available USB port

Part No.	Description	1	5
262713CH	EyeD Hamster	\$115.95	\$104.35

## EyeD USB OptiMouse with Biometric Recognition Software

With security and convenience of its finger print recognition module, this is the world's smartest mouse. No need to memorize passwords—the simple yet unique touch of your finger securely protects your PC, network, and the Internet all at once.

**SALE**



- Surface enhanced irregular reflection optical design
- Fingerprint extraction and verification technology
- Applications: PC and network security, Enterprise IT solution, secure files and folders within your PC, E-commerce

**System requirements:** Windows® 95/95/NT/2000/ME/XP, available USB port

Part No.	Description	1	10
262625CH	EyeD USB OptiMouse	\$115.95	\$110.19

## Lower Your Cost – Spend More!

When you're considering the cost of a security solution, be sure to look beyond the price tag of the components. When installing video equipment, consider the cost of both the equipment and the installation. Wireless cameras and monitors may seem costly compared to their hardwired brethren, but in a new installation, the job may be completed for less cost using the more expensive equipment.



**Practical Practices**  
Money Saving Tips for the Engineer



See [www.Jameco.com/DMM](http://www.Jameco.com/DMM) for accuracy and complete specifications

JAMECO

✓ Professional Grade  
✓ Consistent Quality  
✓ Awesome Prices  
✓ Backed by Jameco

BenchPro

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✓ Backed by Jameco

BenchPro

See [www.Jameco.com/DMM](http://www.Jameco.com/DMM) for accuracy and complete specifications

velleman

Velleman DVM850BL

• 2000 count  
• 6 functions

NEW



P/N 355207CH

\$16.75

MASTECH

Mastech M300

• 2000 count  
• 6 functions  
• Extremely low cost

Pocket Sized



P/N 220812CH

\$9.79

MASTECH

Mastech M830B

• 2000 count  
• 6 functions  
• Extremely low cost



P/N 220855CH

\$9.95

JAMECO

Jameco JE110

• 2000 count  
• 6 functions  
• Pocket size with 100µV resolution

Pocket Sized



P/N 119212CH

\$19.95

JAMECO

BenchPro

BP-1562

• 2000 count  
• 6 functions



P/N 318781CH

\$9.95

MASTECH

Mastech MAS830L

• 2000 count  
• 7 functions  
• Continuity test

SALE



P/N 220759CH

\$13.95

MASTECH

Mastech MAS838

• 2000 count  
• 8 functions  
• Temperature

SALE



P/N 220741CH

\$19.95

MASTECH

Mastech M3900

• 2000 count  
• 8 functions  
• AC current



P/N 220821CH

\$28.95

JAMECO

BenchPro

BP-1206

• 2000 count  
• 8 functions  
• Auto-zero



P/N 27116CH

\$39.95

EXTECH

Extech MV110

• 2000 count  
• 8 functions  
• Tilttable display



P/N 197958CH

\$36.95

				Basic Measurement Functions												Test Functions				Special Functions							
Jameco Part No.	Manufacturer No.	Display Count	No. of Functions	Resolution (max DC)	DC Voltage Ranges (V)	AC Voltage Ranges (V)	DC Current Ranges (A)	AC Current Ranges (A)	Resistance Ranges (Ω)	Capacitance Ranges (F)	Inductance Ranges (H)		Frequency Ranges (Hz)	Temperature Range		Diode Test	Logic Test	Continuity Test	Transistor hFE Test	Autorange	Analog Bargraph	RS-232 PC Interface	True RMS	Size (H"xW"xD")	Jameco Part No.	Pricing	
														°C	°F											1	5
355207CH	Velleman DVM850BL	2000	6	—	200m - 100	200 - 600	200μ - 10	—	200 - 2M	—	—		—	—	—	✓		✓	✓					5.4 x 2.7 x 1.2	355207CH	\$16.75	\$15.92
220812CH	Mastech M300	2000	6	1mV	2 - 500	200 - 500	200mA	—	2k - 2M	—	—		—	—	—	✓		✓						4.7 x 2.7 x 0.8	220812CH	9.79	8.85
220855CH	Mastech M830B	2000	6	100μV	200m - 1000	200 - 750	200μ - 10	—	200 - 2M	—	—	↔	—	—	—	✓			✓					5.4 x 2.7 x 1.2	220855CH	9.95	9.45
119212CH	Jameco JE110	2000	6	100μV	200m - 1000	200 - 750	200μ - 10	—	200 - 2M	—	—		—	—	—	✓			✓					4.8 x 2.6 x 1.0	119212CH	19.95	17.95
318781CH	BenchPro BP-1562	2000	6	100μV	200m - 600	200 - 750	200μ - 10	—	200 - 2M	—	—		—	—	—	✓			✓					5.4 x 2.7 x 1.2	318781CH	9.95	9.45
220759CH	Mastech MAS830L	2000	7	100μV	200m - 600	200 - 600	200μ - 10	—	200 - 2M	—	—		—	—	—	✓		✓	✓					5.7 x 3.0 x 1.4	220759CH	13.95	13.24
220741CH	Mastech MAS838	2000	8	100μV	200m - 600	200 - 600	2m - 10	—	200 - 2M	—	—		—	-20 to 1000	—	✓		✓	✓					5.7 x 3.0 x 1.4	220741CH	19.95	15.96
220821CH	Mastech M3900	2000	8	100μV	200m - 1000	200m - 700	20μ - 10	20μ - 10	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.4 x 1.3	220821CH	28.95	27.49
27116CH	BenchPro BP-1206	2000	8	100μV	200m - 1000	200m - 700	20μ - 10	20μ - 10	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.5 x 1.4	27116CH	39.95	35.95
197958CH	Extech MV110	2000	8	100μV	200m - 1000	200m - 750	20μ - 10	20μ - 10	200 - 200M	—	—	↔	—	—	—	✓		✓	✓					7.3 x 3.5 x 1.3	197958CH	36.95	35.19
27115CH	Metex M3800	2000	8	100μV	200m - 1000	200m - 700	20μ - 20	20μ - 20	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.5 x 1.4	27115CH	39.95	35.95
220775CH	Mastech MY64	2000	11	100μV	200m - 1000	200m - 700	2m - 10	2m - 10	200 - 200M	2n - 20μ	—		2k - 20k	-20 to 1000	—	✓		✓	✓					7.4 x 3.6 x 1.3	220775CH	38.79	34.91
177480CH	AEEC 2890	2000	11	100μV	200m - 1000	2 - 700	2m - 10	200m - 10	200 - 20M	2n - 20μ	—		20k	-20 to 1000	—	✓		✓	✓					8.0 x 4.0 x 2.0	177480CH	52.49	47.24
182035CH	Fluke 73-III	3200	9	100μV	320m - 600	320m - 600	320m - 10	320m - 10	320 - 32M	—	—		—	—	—	✓				✓	✓			6.6 x 3.0 x 1.1	182035CH	158.95	150.99
220767CH	Mastech MY68	3260	12	100μV	326m - 1000	3.26 - 700	326μ - 10	326μ - 10	326 - 32.6M	326n - 32.6μ	—		32.6k - 150k	—	—	✓		✓	✓					7.4 x 3.6 x 1.3	220767CH	35.95	32.36
216514CH	Metex ME-31	4000	10	100μV	400m - 1000	400m - 750	4m - 20	4m - 20	400 - 4M	—	—		—	—	—	✓		✓		✓	✓			7.3 x 3.3 x 1.5	216514CH	56.95	54.15
211650CH	Extech MN26	4000	11	100μV	400m - 600	400m - 600	400μ - 10	400μ - 10	400 - 40M	4n - 200μ	—	↔	10 - 10M	0 to 760	0 to 1400	✓		✓		✓		✓		4.8 x 2.4 x 1.6	211650CH	39.95	37.95
117373CH	BenchPro BP-1949	4000	11	100μV	400m - 400	4 - 400	400μ - 10	400μ - 10	400 - 4M	50n - 100μ	—		5 - 50k	-20 to 1000	—	✓		✓		✓		✓		7.7 x 3.6 x 1.6	117373CH	99.95	94.95
137462CH	BenchPro BP-1737	4000	11	100μV	400m - 400	4 - 400	400μ - 10	400μ - 10	400 - 4M	50n - 100μ	—		5 - 50k	-20 to 1000	—	✓		✓		✓		✓	✓	7.7 x 3.6 x 1.6	137462CH	119.95	113.95
221997CH	Metex M3270D	4000	12	100μV	400m - 1000	4 - 750	400μ - 20	400μ - 20	400 - 40M	4n - 400μ	—		4k - 4M	—	—	✓		✓	✓		✓			7.1 x 3.3 x 1.3	221997CH	79.95	75.95

DMMs continued on pages 212 – 213.

DMMs continued on pages 212 – 213.

METEX®

Metex M3800

• 2000 count  
• 8 functions  
• Auto-zero



P/N 27115CH

\$39.95

MASTECH

Mastech MY64

• 2000 count  
• 11 functions  
• Temperature  
• Frequency



P/N 220775CH

\$38.79

AEEC

AEEC 2890

• 2000 count  
• 11 functions  
• Temperature  
• Frequency  
• Tilttable display



P/N 177480CH

\$52.49

FLUKE

Fluke 73-III

• 3200 count  
• 9 functions  
• Autorange  
• Frequency  
• Analog bargraph



P/N 182035CH

\$158.95

MASTECH

Mastech MY68

• 3260 count  
• 12 functions  
• Autorange  
• Analog bargraph

SALE



P/N 220767CH

\$35.95

METEX®

Metex ME-31

• 4000 count  
• 10 functions/RS232  
• Autorange  
• Analog bargraph



P/N 216514CH

\$56.95

EXTECH

Extech MN26

• 4000 count  
• 11 functions  
• Autorange  
• Temperature  
• Frequency

Pocket Sized



P/N 211650CH

\$39.95

JAMECO

BenchPro

BP-1949

• 4000 count  
• 12 functions/RS-232  
• Autorange  
• Temperature  
• Frequency



P/N 117373CH

\$99.95

JAMECO

BenchPro

BP-1737

• 4000 count  
• 12 functions/RS-232  
• Autorange  
• Temperature  
• Frequency

True RMS



P/N 137462CH

\$119.95

METEX®

Metex M3270D

• 4000 count  
• 12 functions  
• Autorange  
• Frequency  
• Dual display



P/N 221997CH

\$79.95

See [www.Jameco.com/DMM](http://www.Jameco.com/DMM) for accuracy and complete specifications

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✓ Consistent Quality  
✓ Awesome Prices  
✓ Backed by Jameco

BenchPro

Color Code Legend

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JAMECO

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✓ Consistent Quality  
✓ Awesome Prices  
✓ Backed by Jameco

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See [www.Jameco.com/DMM](http://www.Jameco.com/DMM) for accuracy and complete specifications

velleman

Velleman DVM850BL

• 2000 count  
• 6 functions

NEW



P/N 355207CH

\$16.75

MASTECH

Mastech M300

• 2000 count  
• 6 functions  
• Extremely low cost

Pocket Sized



P/N 220812CH

\$9.79

MASTECH

Mastech M830B

• 2000 count  
• 6 functions  
• Extremely low cost



P/N 220855CH

\$9.95

JAMECO

Jameco JE110

• 2000 count  
• 6 functions  
• Pocket size with 100µV resolution

Pocket Sized



P/N 119212CH

\$19.95

JAMECO

BenchPro

BP-1562

• 2000 count  
• 6 functions



P/N 318781CH

\$9.95

MASTECH

Mastech MAS830L

• 2000 count  
• 7 functions  
• Continuity test

SALE



P/N 220759CH

\$13.95

MASTECH

Mastech MAS838

• 2000 count  
• 8 functions  
• Temperature

SALE



P/N 220741CH

\$19.95

MASTECH

Mastech M3900

• 2000 count  
• 8 functions  
• AC current



P/N 220821CH

\$28.95

JAMECO

BenchPro

BP-1206

• 2000 count  
• 8 functions  
• Auto-zero



P/N 27116CH

\$39.95

EXTECH

Extech MV110

• 2000 count  
• 8 functions  
• Tilttable display



P/N 197958CH

\$36.95

				Basic Measurement Functions												Test Functions				Special Functions							
Jameco Part No.	Manufacturer No.	Display Count	No. of Functions	Resolution (max DC)	DC Voltage Ranges (V)	AC Voltage Ranges (V)	DC Current Ranges (A)	AC Current Ranges (A)	Resistance Ranges (Ω)	Capacitance Ranges (F)	Inductance Ranges (H)		Frequency Ranges (Hz)	Temperature Range		Diode Test	Logic Test	Continuity Test	Transistor hFE Test	Autorange	Analog Bargraph	RS-232 PC Interface	True RMS	Size (H"xW"xD")	Jameco Part No.	Pricing	
														°C	°F											1	5
355207CH	Velleman DVM850BL	2000	6	—	200m - 100	200 - 600	200μ - 10	—	200 - 2M	—	—		—	—	—	✓		✓	✓					5.4 x 2.7 x 1.2	355207CH	\$16.75	\$15.92
220812CH	Mastech M300	2000	6	1mV	2 - 500	200 - 500	200mA	—	2k - 2M	—	—		—	—	—	✓		✓						4.7 x 2.7 x 0.8	220812CH	9.79	8.85
220855CH	Mastech M830B	2000	6	100μV	200m - 1000	200 - 750	200μ - 10	—	200 - 2M	—	—	↔	—	—	—	✓			✓					5.4 x 2.7 x 1.2	220855CH	9.95	9.45
119212CH	Jameco JE110	2000	6	100μV	200m - 1000	200 - 750	200μ - 10	—	200 - 2M	—	—		—	—	—	✓			✓					4.8 x 2.6 x 1.0	119212CH	19.95	17.95
318781CH	BenchPro BP-1562	2000	6	100μV	200m - 600	200 - 750	200μ - 10	—	200 - 2M	—	—		—	—	—	✓			✓					5.4 x 2.7 x 1.2	318781CH	9.95	9.45
220759CH	Mastech MAS830L	2000	7	100μV	200m - 600	200 - 600	200μ - 10	—	200 - 2M	—	—		—	—	—	✓		✓	✓					5.7 x 3.0 x 1.4	220759CH	13.95	13.24
220741CH	Mastech MAS838	2000	8	100μV	200m - 600	200 - 600	2m - 10	—	200 - 2M	—	—		—	-20 to 1000	—	✓		✓	✓					5.7 x 3.0 x 1.4	220741CH	19.95	15.96
220821CH	Mastech M3900	2000	8	100μV	200m - 1000	200m - 700	20μ - 10	20μ - 10	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.4 x 1.3	220821CH	28.95	27.49
27116CH	BenchPro BP-1206	2000	8	100μV	200m - 1000	200m - 700	20μ - 10	20μ - 10	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.5 x 1.4	27116CH	39.95	35.95
197958CH	Extech MV110	2000	8	100μV	200m - 1000	200m - 750	20μ - 10	20μ - 10	200 - 200M	—	—	↔	—	—	—	✓		✓	✓					7.3 x 3.5 x 1.3	197958CH	36.95	35.19
27115CH	Metex M3800	2000	8	100μV	200m - 1000	200m - 700	20μ - 20	20μ - 20	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.5 x 1.4	27115CH	39.95	35.95
220775CH	Mastech MY64	2000	11	100μV	200m - 1000	200m - 700	2m - 10	2m - 10	200 - 200M	2n - 20μ	—		2k - 20k	-20 to 1000	—	✓		✓	✓					7.4 x 3.6 x 1.3	220775CH	38.79	34.91
177480CH	AEEC 2890	2000	11	100μV	200m - 1000	2 - 700	2m - 10	200m - 10	200 - 20M	2n - 20μ	—		20k	-20 to 1000	—	✓		✓	✓					8.0 x 4.0 x 2.0	177480CH	52.49	47.24
182035CH	Fluke 73-III	3200	9	100μV	320m - 600	320m - 600	320m - 10	320m - 10	320 - 32M	—	—		—	—	—	✓				✓	✓			6.6 x 3.0 x 1.1	182035CH	158.95	150.99
220767CH	Mastech MY68	3260	12	100μV	326m - 1000	3.26 - 700	326μ - 10	326μ - 10	326 - 32.6M	326n - 32.6μ	—		32.6k - 150k	—	—	✓		✓	✓					7.4 x 3.6 x 1.3	220767CH	35.95	32.36
216514CH	Metex ME-31	4000	10	100μV	400m - 1000	400m - 750	4m - 20	4m - 20	400 - 4M	—	—		—	—	—	✓		✓		✓	✓			7.3 x 3.3 x 1.5	216514CH	56.95	54.15
211650CH	Extech MN26	4000	11	100μV	400m - 600	400m - 600	400μ - 10	400μ - 10	400 - 40M	4n - 200μ	—	↔	10 - 10M	0 to 760	0 to 1400	✓		✓		✓		✓		4.8 x 2.4 x 1.6	211650CH	39.95	37.95
117373CH	BenchPro BP-1949	4000	11	100μV	400m - 400	4 - 400	400μ - 10	400μ - 10	400 - 4M	50n - 100μ	—		5 - 50k	-20 to 1000	—	✓		✓		✓		✓		7.7 x 3.6 x 1.6	117373CH	99.95	94.95
137462CH	BenchPro BP-1737	4000	11	100μV	400m - 400	4 - 400	400μ - 10	400μ - 10	400 - 4M	50n - 100μ	—		5 - 50k	-20 to 1000	—	✓		✓		✓		✓	✓	7.7 x 3.6 x 1.6	137462CH	119.95	113.95
221997CH	Metex M3270D	4000	12	100μV	400m - 1000	4 - 750	400μ - 20	400μ - 20	400 - 40M	4n - 400μ	—		4k - 4M	—	—	✓		✓	✓		✓			7.1 x 3.3 x 1.3	221997CH	79.95	75.95

DMMs continued on pages 212 – 213.

DMMs continued on pages 212 – 213.

METEX®

Metex M3800

• 2000 count  
• 8 functions  
• Auto-zero



P/N 27115CH

\$39.95

MASTECH

Mastech MY64

• 2000 count  
• 11 functions  
• Temperature  
• Frequency



P/N 220775CH

\$38.79

AEEC

AEEC 2890

• 2000 count  
• 11 functions  
• Temperature  
• Frequency  
• Tilttable display



P/N 177480CH

\$52.49

FLUKE

Fluke 73-III

• 3200 count  
• 9 functions  
• Autorange  
• Frequency  
• Analog bargraph



P/N 182035CH

\$158.95

MASTECH

Mastech MY68

• 3260 count  
• 12 functions  
• Autorange  
• Analog bargraph

SALE



P/N 220767CH

\$35.95

METEX®

Metex ME-31

• 4000 count  
• 10 functions/RS232  
• Autorange  
• Analog bargraph



P/N 216514CH

\$56.95

EXTECH

Extech MN26

• 4000 count  
• 11 functions  
• Autorange  
• Temperature  
• Frequency

Pocket Sized



P/N 211650CH

\$39.95

JAMECO

BenchPro

BP-1949

• 4000 count  
• 12 functions/RS-232  
• Autorange  
• Temperature  
• Frequency



P/N 117373CH

\$99.95

JAMECO

BenchPro

BP-1737

• 4000 count  
• 12 functions/RS-232  
• Autorange  
• Temperature  
• Frequency

True RMS



P/N 137462CH

\$119.95

METEX®

Metex M3270D

• 4000 count  
• 12 functions  
• Autorange  
• Frequency  
• Dual display



P/N 221997CH

\$79.95



JAMECO  
BenchPro

✓ Professional Grade  
✓ Consistent Quality  
✓ Awesome Prices  
✓ Backed by Jameco

Color Code Legend

New Sale Lower\$ QtySave

- METEX®**  
Metex M3850D
- 4000 count
  - 14 functions/RS-232
  - Autorange
  - Temperature
  - Frequency



P/N 117372CH  
\$104.95

Sizes shown  
are for relative  
comparisons.

Analog  
Bargraph

- METEX®**  
Metex M3890D
- 4000 count
  - 15 functions/USB
  - Autorange
  - Temperature
  - Frequency



P/N 215589CH  
\$99.95

Triple  
Display

- METEX®**  
Metex M3860D
- 4000 count
  - 16 functions/RS232
  - Autorange
  - Temperature
  - Frequency



P/N 137461CH  
\$149.95

True  
RMS

Dual  
Display

- FLUKE**  
Fluke 110
- 6000 count
  - 10 functions
  - Autorange
  - Min/Max/Avg



P/N 190967CH  
\$108.95

P/N 190975CH  
\$138.95

P/N 185527CH  
\$148.95

True  
RMS

- Fluke 111**
- 6000 count
  - 12 functions
  - Autorange
  - Current

- Fluke 112**
- 6000 count
  - 12 functions
  - Autorange
  - Backlit display
  - Current

- FLUKE**  
Fluke 175
- 6000 count
  - 12 functions
  - Autorange
  - Frequency



P/N 192655CH  
\$188.95

True  
RMS

- FLUKE**  
Fluke 177
- 6000 count
  - 12 functions
  - Autorange
  - Frequency



P/N 192663CH  
\$208.95

True  
RMS

- FLUKE**  
Fluke 179
- 6000 count
  - 13 functions
  - Autorange
  - Temperature
  - Frequency



P/N 185535CH  
\$218.95

True  
RMS

- WAVETEK®**  
Wavetek/MM 37XR
- 10,000 count
  - 14 functions
  - Inductance
  - Autorange
  - dB display



P/N 222527CH  
\$129.49

True  
RMS

- WAVETEK®**  
Wavetek/MM 38XR
- 10,000 count
  - 14 functions/RS232
  - Autorange
  - Temperature
  - Frequency



P/N 222543CH  
\$149.49

True  
RMS

- MASTECH**  
Mastech MY65
- 20,000 count
  - 8 functions
  - Capacitance



P/N 136590CH  
\$73.49

Quantity  
SAVE

Sizes shown  
are for relative  
comparisons.

DMMs continued from pages 210 – 211.

DMMs continued from pages 210 – 211.				Basic Measurement Functions												Test Functions				Special Functions				DMMs continued from pages 210 – 211.			
Jameco Part No.	Manufacturer No.	Display Count	No. of Functions	Resolution (max DC)	DC Voltage Ranges (V)	AC Voltage Ranges (V)	DC Current Ranges (A)	AC Current Ranges (A)	Resistance Ranges (Ω)	Capacitance Ranges (F)	Inductance Ranges (H)		Frequency Ranges (Hz)	Temperature Range		Diode Test	Logic Test	Continuity Test	Transistor hFE Test	Autorange	Analog Bargraph	RS-232 PC Interface	True RMS	Size (H"xW"xD")	Jameco Part No.	Pricing	
														°C	°F											1	5
117372CH	Metex M3850D	4000	14	100µV	400m - 1000	400m - 750	400µ - 20	400µ - 20	400 - 40M	4n - 400µ	—		4k - 40M	-40 to 1200	—	✓		✓	✓	✓	✓	✓	✓	7.2 x 3.3 x 1.8	117372CH	\$104.95	\$99.69
215589CH	Metex M3890D	4000	15	100µV	400m - 1000	4 - 750	400µ - 20	400µ - 20	400 - 40M	4n - 200µ	—		4k - 4M	-40 to 1200	-40 to 2192	✓	✓	✓	✓	✓	✓	✓	✓	7.8 x 3.5 x 1.7	215589CH	99.95	94.99
137461CH	Metex M3860D	4000	16	100µV	400m - 1000	400m - 750	40m - 20	40m - 20	400 - 40M	4n - 400µ	40m - 400m	↔	4k - 40M	-40 to 1200	—	✓	✓	✓	✓	✓	✓	✓	✓	7.2 x 3.3 x 1.8	137461CH	149.95	134.99
190967CH	Fluke 110	6000	10	1mV	6 - 600	6 - 600	—	—	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓	✓	✓	✓	✓	✓	11.8 x 7.0 x 3.0	190967CH	108.95	103.49
190975CH	Fluke 111	6000	12	1mV	6 - 600	6 - 600	6 - 10	10	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓	✓	✓	✓	✓	✓	11.8 x 7.0 x 3.0	190975CH	138.95	131.99
185527CH	Fluke 112	6000	12	1mV	6 - 600	6 - 600	6 - 10	10	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓	✓	✓	✓	✓	✓	11.8 x 7.0 x 3.0	185527CH	148.95	141.95
192655CH	Fluke 175*	6000	12	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—		99.99 - 99.99k	—	—	✓		✓	✓	✓	✓	✓	✓	7.3 x 3.5 x 1.7	192655CH	188.95	179.49
192663CH	Fluke 177*	6000	12	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—	↔	99.99 - 99.99k	—	—	✓		✓	✓	✓	✓	✓	✓	7.3 x 3.5 x 1.7	192663CH	208.95	198.55
185535CH	Fluke 179*	6000	13	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—		99.99 - 99.99k	-40 to 400	-40 to 752	✓		✓	✓	✓	✓	✓	✓	7.3 x 3.5 x 1.7	185535CH	218.95	207.99
222527CH	Wavetek/MM 37XR	10,000	14	100µV	1000m - 1000	1000m - 750	100m - 10	100m - 10	1000 - 40M	40n - 400µ	4m - 40		100 - 10M	—	—	✓	✓	✓	✓	✓	✓	✓	✓	7.8 x 3.6 x 2.4	222527CH	129.49	122.99
222543CH	Wavetek/MM 38XR	10,000	14	100µV	1000m - 1000	1000m - 750	100m - 10	100m - 10	1000 - 40M	40n - 400µ	—		100 - 10M	-20 to 1300	-4 to 2372	✓		✓	✓	✓	✓	✓	✓	7.8 x 3.6 x 2.4	222543CH	149.49	141.99
136590CH	Mastech MY65	20,000	8	10µV	200m - 1000	2 - 700	2m - 10	2m - 10	200 - 200M	200p - 20µ	—		—	—	—			✓	✓					7.4 x 3.6 x 1.2	136590CH	73.49	57.25
318764CH	BenchPro BP-1415	20,000	8	10µV	200m - 1000	2 - 700	2m - 20	2m - 20	200 - 200M	2000p - 20µ	—	↔	20k	—	—	✓		✓	✓					7.4 x 3.6 x 1.2	318764CH	73.49	66.15
144872CH	Metex M4640A	20,000	12	10µV	200m - 1000	200m - 750	2m - 20	2m - 20	200 - 20M	20n - 200µ	—		20k - 2M	—	—	✓		✓	✓		✓	✓		7.5 x 3.3 x 1.5	144872CH	132.95	126.35
222375CH	Fluke 187*	50,000	11	1µV	50m - 1000V	50m - 1000	500m - 10	500m - 10	500 - 500M	1n - 50µ	—		500 - 999.99k	-200 to 1350	-328 to 2462	✓				✓	✓		✓	8.0 x 3.9 x 2.0	222375CH	379.99	361.55
182043CH	Fluke 189*	50,000	13	1µV	50m - 1000V	50m - 1000	500m - 10	500m - 10	500 - 500M	1n - 50µ	—		500 - 999.99k	-200 to 1350	-328 to 2462	✓		✓		✓	✓		✓	8.0 x 3.9 x 2.0	182043CH	398.95	378.95
214308CH	Fluke 80BK temperature probe for Fluke 175/177/179/187/189 (Jameco P/Ns 192655CH /192663CH /185535CH /222375CH /182043CH respectively)												Fluke 80BK temperature probe for Fluke 175/177/179/187/189 (Jameco P/Ns 192655CH /192663CH /185535CH /222375CH /182043CH respectively)										214308CH	\$19.95	\$18.95		

\* Temperature probe available — see bottom of chart

JAMECO  
BenchPro

- BP-1415**
- 20,000 count
  - 8 functions
  - Capacitance

A Jameco  
EXCLUSIVE



P/N 318764CH  
\$73.49

**METEX®**

- Metex M4640A**
- 20,000 count
  - 12 functions
  - 4 displays
  - Frequency



P/N 144872CH  
\$132.95

**FLUKE**

- Fluke 187**
- 50,000 count
  - 11 functions
  - Autorange
  - Temperature
  - Frequency



P/N 222375CH  
\$379.99

True  
RMS

**FLUKE**

- Fluke 189**
- 50,000 count
  - 13 functions
  - Data logging
  - Temperature
  - Frequency



P/N 182043CH  
\$398.95

True  
RMS

### Pocket Analog Multimeter

- DC/AC voltage ranges: 0 – 500V
- DC current ranges: 0 – 250mA
- Resistance ranges: 0 – 1kΩ
- Size: 2.3"W x 1.2"D x 3.6"H

Includes: Insulated probes  
Requires: 1.5V battery (recommend P/N 198707CH, pg 183)

Part No.	Description	1	10	50
206287CH	Pocket multimeter	\$6.95	\$6.76	\$5.07

### High Voltage AC/DC Test Probe

- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVrms
- Accuracy: DC: ±1.5%, AC: ±5%
- 10MΩ meter input impedance required
- Input/output impedance: 1,000MΩ/1.1MΩ
- Cable length: 39"
- Probe length: 14"
- Weight: 0.8 lbs.



Part No.	Description	1	10
132290CH	High volt. test probe	\$79.95	\$72.95

### Passive-Component Digital LCR Meter

- 4½-digit backlit LCD display
- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Inductance ranges: 2000.0uH to 2000.0H
- Capacitance ranges: 2000.0pF to 2000.0µF
- Resistance ranges: 20.000Ω to 20.000MΩ

- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off
- Accuracy of 0.7% for L & C, 0.5% for R
- Test frequencies of 120Hz and 1kHz
- Dissipation Factor (D) reading: 0 to 0.9999
- Quality (Q) reading: 0 to 9999
- Size: 3.6"W x 2.1"D x 7.6"H • Weight: 0.8 lbs.

Includes: Test leads, alligator clips, 9V battery & holster

Part No.	Description	1	10
198678CH	LCR Meter	\$178.95	\$160.95
189237CH	9VDC @ 300mA adapter	4.25	3.25

### Digital LCR Meter

- 3½-digit display (0.5" digit height)
- Inductance ranges: 200µH – 200H
- Capacitance ranges: 200pF – 2000µF
- Resistance ranges: 2mΩ – 20MΩ
- Dissipation factor measurement
- Size: 3.3"W x 1.4"D x 6.7"H
- Weight: 1.1 lbs.
- One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	1	10	25
127538CH	LCR meter	\$149.95	\$134.95	\$121.46

### 15A AC Line Separator for AC Current Clamp Meters

- Max. overload: 250VAC@15A
- X1 and X10 clamp areas
- Socket compatible with US & European connectors
- Convenient 0.1" dia. tip test points for neutral/earth/line

Part No.	Description	1	10	25
162325CH	3-prong US-type plug	\$11.95	\$10.16	\$7.62

### Mini DC/AC 2000-Count Clamp Meter/Multimeter

- Bright 1/2" LCD
- DATA HOLD
- 0.5" digit height
- Compatible with P/N 162325CH, below
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.

Requires: 9V battery not included (P/N 151095CH, pg 183)

Includes: Test leads, manual and case

Part No.	Description	1	10
115756CH	Mini DC/AC clamp meter	\$119.95	\$107.95

### 50mV/50A Current Shunt

- Current range: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A



JAMECO  
BenchPro

✓ Professional Grade  
✓ Consistent Quality  
✓ Awesome Prices  
✓ Backed by Jameco

Color Code Legend

New Sale Lower\$ QtySave

- METEX®**  
Metex M3850D
- 4000 count
  - 14 functions/RS-232
  - Autorange
  - Temperature
  - Frequency



P/N 117372CH  
\$104.95

Sizes shown  
are for relative  
comparisons.

Analog  
Bargraph

- METEX®**  
Metex M3890D
- 4000 count
  - 15 functions/USB
  - Autorange
  - Temperature
  - Frequency



P/N 215589CH  
\$99.95

Triple  
Display

- METEX®**  
Metex M3860D
- 4000 count
  - 16 functions/RS232
  - Autorange
  - Temperature
  - Frequency



P/N 137461CH  
\$149.95

True  
RMS

Dual  
Display

- FLUKE**  
Fluke 110
- 6000 count
  - 10 functions
  - Autorange
  - Min/Max/Avg



P/N 190967CH  
\$108.95

P/N 190975CH  
\$138.95

P/N 185527CH  
\$148.95

True  
RMS

- Fluke 111**
- 6000 count
  - 12 functions
  - Autorange
  - Current

- Fluke 112**
- 6000 count
  - 12 functions
  - Autorange
  - Backlit display
  - Current

- FLUKE**  
Fluke 175
- 6000 count
  - 12 functions
  - Autorange
  - Frequency



P/N 192655CH  
\$188.95

True  
RMS

- FLUKE**  
Fluke 177
- 6000 count
  - 12 functions
  - Autorange
  - Frequency



P/N 192663CH  
\$208.95

True  
RMS

- FLUKE**  
Fluke 179
- 6000 count
  - 13 functions
  - Autorange
  - Temperature
  - Frequency



P/N 185535CH  
\$218.95

True  
RMS

- WAVETEK®**  
Wavetek/MM 37XR
- 10,000 count
  - 14 functions
  - Inductance
  - Autorange
  - dB display



P/N 222527CH  
\$129.49

True  
RMS

- WAVETEK®**  
Wavetek/MM 38XR
- 10,000 count
  - 14 functions/RS232
  - Autorange
  - Temperature
  - Frequency



P/N 222543CH  
\$149.49

True  
RMS

- MASTECH**  
Mastech MY65
- 20,000 count
  - 8 functions
  - Capacitance



P/N 136590CH  
\$73.49

Quantity  
SAVE

Sizes shown  
are for relative  
comparisons.

DMMs continued from pages 210 – 211.

DMMs continued from pages 210 – 211.				Basic Measurement Functions												Test Functions				Special Functions				DMMs continued from pages 210 – 211.			
Jameco Part No.	Manufacturer No.	Display Count	No. of Functions	Resolution (max DC)	DC Voltage Ranges (V)	AC Voltage Ranges (V)	DC Current Ranges (A)	AC Current Ranges (A)	Resistance Ranges (Ω)	Capacitance Ranges (F)	Inductance Ranges (H)		Frequency Ranges (Hz)	Temperature Range		Diode Test	Logic Test	Continuity Test	Transistor hFE Test	Autorange	Analog Bargraph	RS-232 PC Interface	True RMS	Size (H"xW"xD")	Jameco Part No.	Pricing	
														°C	°F											1	5
117372CH	Metex M3850D	4000	14	100µV	400m - 1000	400m - 750	400µ - 20	400µ - 20	400 - 40M	4n - 400µ	—		4k - 40M	-40 to 1200	—	✓		✓	✓	✓	✓	✓	✓	7.2 x 3.3 x 1.8	117372CH	\$104.95	\$99.69
215589CH	Metex M3890D	4000	15	100µV	400m - 1000	4 - 750	400µ - 20	400µ - 20	400 - 40M	4n - 200µ	—		4k - 4M	-40 to 1200	-40 to 2192	✓	✓	✓	✓	✓	✓	✓	✓	7.8 x 3.5 x 1.7	215589CH	99.95	94.99
137461CH	Metex M3860D	4000	16	100µV	400m - 1000	400m - 750	40m - 20	40m - 20	400 - 40M	4n - 400µ	40m - 400m	↔	4k - 40M	-40 to 1200	—	✓	✓	✓	✓	✓	✓	✓	✓	7.2 x 3.3 x 1.8	137461CH	149.95	134.99
190967CH	Fluke 110	6000	10	1mV	6 - 600	6 - 600	—	—	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓	✓	✓	✓	✓	✓	11.8 x 7.0 x 3.0	190967CH	108.95	103.49
190975CH	Fluke 111	6000	12	1mV	6 - 600	6 - 600	6 - 10	10	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓	✓	✓	✓	✓	✓	11.8 x 7.0 x 3.0	190975CH	138.95	131.99
185527CH	Fluke 112	6000	12	1mV	6 - 600	6 - 600	6 - 10	10	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓	✓	✓	✓	✓	✓	11.8 x 7.0 x 3.0	185527CH	148.95	141.95
192655CH	Fluke 175*	6000	12	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—		99.99 - 99.99k	—	—	✓		✓	✓	✓	✓	✓	✓	7.3 x 3.5 x 1.7	192655CH	188.95	179.49
192663CH	Fluke 177*	6000	12	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—	↔	99.99 - 99.99k	—	—	✓		✓	✓	✓	✓	✓	✓	7.3 x 3.5 x 1.7	192663CH	208.95	198.55
185535CH	Fluke 179*	6000	13	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—		99.99 - 99.99k	-40 to 400	-40 to 752	✓		✓	✓	✓	✓	✓	✓	7.3 x 3.5 x 1.7	185535CH	218.95	207.99
222527CH	Wavetek/MM 37XR	10,000	14	100µV	1000m - 1000	1000m - 750	100m - 10	100m - 10	1000 - 40M	40n - 400µ	4m - 40		100 - 10M	—	—	✓	✓	✓	✓	✓	✓	✓	✓	7.8 x 3.6 x 2.4	222527CH	129.49	122.99
222543CH	Wavetek/MM 38XR	10,000	14	100µV	1000m - 1000	1000m - 750	100m - 10	100m - 10	1000 - 40M	40n - 400µ	—		100 - 10M	-20 to 1300	-4 to 2372	✓		✓	✓	✓	✓	✓	✓	7.8 x 3.6 x 2.4	222543CH	149.49	141.99
136590CH	Mastech MY65	20,000	8	10µV	200m - 1000	2 - 700	2m - 10	2m - 10	200 - 200M	200p - 20µ	—		—	—	—			✓	✓					7.4 x 3.6 x 1.2	136590CH	73.49	57.25
318764CH	BenchPro BP-1415	20,000	8	10µV	200m - 1000	2 - 700	2m - 20	2m - 20	200 - 200M	2000p - 20µ	—	↔	20k	—	—	✓		✓	✓					7.4 x 3.6 x 1.2	318764CH	73.49	66.15
144872CH	Metex M4640A	20,000	12	10µV	200m - 1000	200m - 750	2m - 20	2m - 20	200 - 20M	20n - 200µ	—		20k - 2M	—	—	✓		✓	✓		✓	✓		7.5 x 3.3 x 1.5	144872CH	132.95	126.35
222375CH	Fluke 187*	50,000	11	1µV	50m - 1000V	50m - 1000	500m - 10	500m - 10	500 - 500M	1n - 50µ	—		500 - 999.99k	-200 to 1350	-328 to 2462	✓				✓	✓		✓	8.0 x 3.9 x 2.0	222375CH	379.99	361.55
182043CH	Fluke 189*	50,000	13	1µV	50m - 1000V	50m - 1000	500m - 10	500m - 10	500 - 500M	1n - 50µ	—		500 - 999.99k	-200 to 1350	-328 to 2462	✓		✓		✓	✓		✓	8.0 x 3.9 x 2.0	182043CH	398.95	378.95
214308CH	Fluke 80BK temperature probe for Fluke 175/177/179/187/189 (Jameco P/Ns 192655CH /192663CH /185535CH /222375CH /182043CH respectively)												Fluke 80BK temperature probe for Fluke 175/177/179/187/189 (Jameco P/Ns 192655CH /192663CH /185535CH /222375CH /182043CH respectively)										214308CH	\$19.95	\$18.95		

\* Temperature probe available — see bottom of chart

JAMECO BenchPro

- BP-1415**
- 20,000 count
  - 8 functions
  - Capacitance

A Jameco  
EXCLUSIVE



P/N 318764CH  
\$73.49

**METEX®**

- Metex M4640A**
- 20,000 count
  - 12 functions
  - 4 displays
  - Frequency



P/N 144872CH  
\$132.95

**FLUKE**

- Fluke 187**
- 50,000 count
  - 11 functions
  - Autorange
  - Temperature
  - Frequency



P/N 222375CH  
\$379.99

True  
RMS

**FLUKE**

- Fluke 189**
- 50,000 count
  - 13 functions
  - Data logging
  - Temperature
  - Frequency



P/N 182043CH  
\$398.95

True  
RMS

### Pocket Analog Multimeter

- DC/AC voltage ranges: 0 – 500V
- DC current ranges: 0 – 250mA
- Resistance ranges: 0 – 1kΩ
- Size: 2.3"W x 1.2"D x 3.6"H

Includes: Insulated probes  
Requires: 1.5V battery (recommend P/N 198707CH, pg 183)

Part No.	Description	1	10	50
206287CH	Pocket multimeter	\$6.95	\$6.76	\$5.07

### High Voltage AC/DC Test Probe

- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVrms
- Accuracy: DC: ±1.5%, AC: ±5%
- 10MΩ meter input impedance required
- Input/output impedance: 1,000MΩ/1.1MΩ
- Cable length: 39"
- Probe length: 14"
- Weight: 0.8 lbs.



Part No.	Description	1	10
132290CH	High volt. test probe	\$79.95	\$72.95

### Passive-Component Digital LCR Meter

- 4½-digit backlit LCD display
- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Inductance ranges: 2000.0uH to 2000.0H
- Capacitance ranges: 2000.0pF to 2000.0µF
- Resistance ranges: 20.000Ω to 20.000MΩ

- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off
- Accuracy of 0.7% for L & C, 0.5% for R
- Test frequencies of 120Hz and 1kHz
- Dissipation Factor (D) reading: 0 to 0.9999
- Quality (Q) reading: 0 to 9999
- Size: 3.6"W x 2.1"D x 7.6"H • Weight: 0.8 lbs.

Includes: Test leads, alligator clips, 9V battery & holster

Part No.	Description	1	10
198678CH	LCR Meter	\$178.95	\$160.95
189237CH	9VDC @ 300mA adapter	4.25	3.25

### Digital LCR Meter

- 3½-digit display (0.5" digit height)
- Inductance ranges: 200µH – 200H
- Capacitance ranges: 200pF – 2000µF
- Resistance ranges: 2mΩ – 20MΩ
- Dissipation factor measurement
- Size: 3.3"W x 1.4"D x 6.7"H
- Weight: 1.1 lbs.
- One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	1	10	25
127538CH	LCR meter	\$149.95	\$134.95	\$121.46

### 15A AC Line Separator for AC Current Clamp Meters

- Max. overload: 250VAC@15A
- X1 and X10 clamp areas
- Socket compatible with US & European connectors
- Convenient 0.1" dia. tip test points for neutral/earth/line

Part No.	Description	1	10	25
162325CH	3-prong US-type plug	\$11.95	\$10.16	\$7.62

### Mini DC/AC 2000-Count Clamp Meter/Multimeter

- Bright 1/2" LCD
- DATA HOLD
- 0.5" digit height
- Compatible with P/N 162325CH, below
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.

Requires: 9V battery not included (P/N 151095CH, pg 183)

Includes: Test leads, manual and case

Part No.	Description	1	10
115756CH	Mini DC/AC clamp meter	\$119.95	\$107.95

### 50mV/50A Current Shunt

- Current range: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A

## 4000-Count True-RMS Benchtop Multimeter with RS-232

- 9 functions, 32 ranges
- 3½-digit backlit LCD display with bargraph
- Auto/manual ranging
- True RMS AC volts and amps
- Resolution: 100µV maximum
- DC voltage ranges: 400mV – 1000V (0.3% accuracy)
- AC voltage ranges: 4V – 750V
- DC/AC current ranges: 4mA – 10A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 40µF
- Frequency ranges: 100Hz – 600kHz
- Diode and continuity test • Delay hold mode
- Min., max., and relative hold function
- Input voltage: 9V battery or 90-132VAC/198-264VAC @ 50-60Hz
- Size: 9.0"W x 9.4"D x 3.3"H
- Weight: 3.3 lbs. • Two-year warranty



Protek

Includes: Manual, test leads, power adapter, 9V battery, RS-232 cable and software (98/ME/2000/XP compatible)

Part No.	Product No.	1	5
230586CH	B940	\$148.95	\$141.55

## 2000-Count Multimeter

The Fluke 8012A is a portable, bench-type, digital multimeter with 3½ digit liquid crystal display (LCD).

- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 20µA – 2A
- Resistance ranges: 2Ω – 20Ω (low range) 200Ω – 20MΩ
- Conductance ranges: 2µS – 200nS
- Size: 7.5"W x 9.6"D x 2.5"H • Weight: 2.6 lbs.



FLUKE

Part No.	Product No.	Price
203801CH	8012A	\$199.95

✦ Refurbished = Backed by Jameco

## 20,000-Count True-RMS Benchtop Multimeter

- 4½-digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 10µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Frequency measurement up to 200kHz
- Continuity check with beeper
- Data hold, diode check, transistor h<sub>FE</sub> measurement available
- Size: 9.9"L x 9.8"W x 3.6"H • Weight: 6.1 lbs.
- One-year manufacturer's warranty



EZ DIGITAL

Part No.	Product No.	1	10	25
132564CH	DM441	\$219.95	\$209.95	\$199.95

## 20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays

- Automatic polarity indicator
- 1-2 readings/second
- DC accuracy: 0.1% +5 digits
- 10 reading storage and compare
- Resolution: 10µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 20A
- Resistance ranges: 200Ω – 20MΩ
- Frequency ranges: 20kHz – 20MHz
- Min., max., average, relative functions
- Logic, diode, transistor h<sub>FE</sub> and continuity test
- Size: 11.2"L x 8.2"W x 3.2"H • Weight: 7.5 lbs.



METEX

Includes: Manual, power cable, probes and software

Part No.	Product No.	1	10
166852CH	MXD4660A	\$249.95	\$224.95

## 100,000-Count Dual-Display True-RMS Benchtop Multimeter

The Fluke 45 delivers high performance and flexibility for manufacturing test, depot & field service, as well as R&D applications.

- 5-digit 100,000-count dual display allow the user to measure and view two different parameters of the same signal from one test connection
- dB measurements: 21 selectable reference impedances from 2 to 8000, and audio power from 2W to 16W • 2.5 reading per second
- Compare (Hi/Low/Pass) function for quick in-tolerance tests • Resolution: 1µV maximum
- 8 functions, 31 ranges • Diode and continuity test
- DC voltage ranges: 100mV – 1000V
- AC voltage ranges (True RMS; AC-coupled): 100mV – 750V
- DC/AC current ranges: 10mA – 10A (0.05% DC current accuracy)
- Resistance ranges: 100Ω – 100MΩ
- Frequency ranges: 1kHz – 1MHz
- GPIB interface with battery • Weight: 7.0 lbs.
- Size: 8.5"W x 11.3"D x 3.7"H
- Blue Part No. = Limited Qty Available



FLUKE

Lower \$\$\$

Part No.	Product No.	1	5
229833CH	FLK-45-15	\$867.59	\$788.75

## 200W Programmable Switching Power Supplies with PC Interface

- Voltage regulation: ≤10mV load; ≤0.05% line
- Current regulation: ≤5mA load; ≤0.05% line
- Output ON/OFF control
- Ripple: ≤20mV<sub>RMS</sub>; ≤10mA<sub>RMS</sub>
- Over-voltage/over-current/over-power/over-temperature protection
- Standard RS-232C 9-pin female interface
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 8.9"W x 12.0"D x 3.9"H
- Weight: 8.8 lbs. • Two-year warranty



INSTEK

Includes: Power cord, operations manual & test leads

Part No.	Product No.	Description	1	5
229323CH	PSP-2010	0-20V @ 0-10A	\$349.95	\$332.45
229294CH	PSP-603	0-60V @ 0-3.5A	\$349.95	\$332.45

## 90-Watt Digital DC Power Supply 30VDC @ 3A

- Constant current and constant voltage operation
- Can be used for positive or negative source
- Overload protection circuit
- Input voltage: 100/240VAC @ 50-60Hz
- Size: 5.2"W x 5.6"H x 10.0"D
- Weight: 10.9 lbs.
- One-year warranty



EZ DIGITAL

Part No.	Product No.	1	10
121152CH	GP4303D	\$189.95	\$179.95

## 100-Watt Triple Output Digital and Analog DC Power Supplies 30VDC @ 3A

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 – 30V voltage and 0 – 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H • Weight: 10.0 lbs.



197991CH



197982CH

Part No.	Description	1	10
197991CH	Digital DC	\$198.95	\$178.95
197982CH	Analog DC	\$168.95	\$151.95

## 150-Watt Digital Power Supply 30VDC @ 5A

- Adjustable voltage/current outputs • 2A @ 250V fuse
- Constant voltage and current operation • Dual digital display
- LCD displays for both current and voltage
- Coarse/fine adjustment knobs for current and voltage
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Color-coded terminals for positive, negative and ground connections
- Size: 5.4"W x 10.7"D x 6.0"H
- Weight: 13.8 lbs. • One-year warranty



Part No.	Description	1	10	25
153242CH	30VDC @ 5A	\$234.95	\$211.49	\$190.35

## 150-Watt Power Supply 50VDC @ 3A

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Color: dark gray • Weight: 12.3 lbs.
- Size: 9.0"L x 4.75"W x 7.5"H • One-year warranty



Part No.	Description	1	10	25
163723CH	50VDC @ 3A	\$143.95	\$136.75	\$129.89



# Benchtop Power Supplies & Digital Oscilloscopes



## 30-Watt Digital Benchtop Power Supply

- Single output with adjustable 1.5VDC to 30VDC
- Input voltage: 85-264VAC @ 47-63Hz
- Large digit backlit display
- Overload and short-circuit protection

- Compact design
- Output terminals
- 1A fixed current output
- Size: 5.5"L x 5.2"W x 1.6"H



Part No.	Product No.	Displays	Power	Wt. (lbs.)	1	10
301971CH	PSU130	Single digital	30 watts	1.2	\$79.95	\$75.95



## 45W to 600W Benchtop Power Supplies

- Voltage and current adjustable
- Current restricted and short-circuit protection
- Input voltage: 110/220 ±10% VAC

- Analog display power supplies • Accuracy: 2.5%
- Digital display power supplies
- Voltage accuracy: 1% + 2 digits
- Current accuracy: 1.5% + 2 digits

Quantity SAVE



301920CH



207618CH



207706CH



211692CH

### Single Output

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W"xH"xD")	Wt. (lbs.)	1	10
301920CH	HY1503C	2-Analog	45	15/3	3.8 x 6.3 x 9.1	9	\$99.95	\$94.95
301866CH	HY3003D	2-Digital	90	30/3	5.4 x 6.2 x 11.5	10	\$179.95	\$170.95
207618CH	HY3005C	2-Analog	150	30/5	5.4 x 6.2 x 11.5	14	\$159.95	\$144.95
207626CH	HY3010C	2-Analog	300	30/10	10.4 x 6.5 x 14.4	31	\$299.95	\$230.00
207693CH	HY5002	2-Digital	100	50/2	5.4 x 6.2 x 11.5	13	\$189.95	\$170.95
301911CH	HY3005D	2-Digital	150	30/5	5.4 x 6.2 x 11.5	13	\$224.95	\$213.70
207706CH	HY5003	2-Digital	150	50/3	5.4 x 6.2 x 11.5	13	\$249.95	\$190.00
207600CH	HY5005	2-Digital	250	50/5	10.4 x 6.5 x 14.4	17	\$299.95	\$269.95
207634CH	HY3010	2-Digital	300	30/10	10.4 x 6.5 x 14.4	31	\$399.95	\$305.00
207685CH	HY3020	2-Digital	600	30/20	10.4 x 6.5 x 14.4	42	\$499.95	\$449.95

### Multiple Output

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W"xH"xD")	Wt. (lbs.)	1	10
211721CH	HY3002-2	2-Digital	120	0-30/2; 0-30/2	10.4 x 6.5 x 14.4	23	\$249.95	\$194.00
211705CH	HY3002D-2	4-Digital	120	0-30/2; 0-30/2	10.4 x 6.5 x 14.4	23	\$269.95	\$210.00
211692CH	HY3003D-2	4-Digital	180	0-30/3; 0-30/3	10.4 x 6.5 x 14.4	28	\$289.95	\$259.95
211730CH	HY3003-2	2-Digital	180	0-30/3; 0-30/3	10.4 x 6.5 x 14.4	28	\$299.95	\$230.00
211713CH	HY3003-3	2-Digital	195	0-30/3; 0-30/3; 5/3	10.4 x 6.5 x 14.4	29	\$319.95	\$287.95
211684CH	HY3003D-3	4-Digital	195	0-30/3; 0-30/3; 5/3	10.4 x 6.5 x 14.4	29	\$329.95	\$296.95
301946CH	HY3005D	4-Digital	300	0-30/5; 0-30/5	10.4 x 6.5 x 14.4	26.5	\$349.95	\$332.45
301954CH	HY3005D-3	4-Digital	315	0-30/5; 0-30/5; 5/3	10.4 x 6.5 x 14.4	29	\$369.95	\$351.45
301962CH	HY5003-2	2-Digital	300	0-50/3; 0-50/3	10.4 x 6.5 x 14.4	26	\$339.95	\$322.95

## Analog Power Supplies

### 150 to 225-Watt

- Color-coded adjustment knob and output terminals for voltage
- Voltage and current panel meter
- Cigarette lighter plug for current output
- LED indicator for power and warning
- Constant voltage operation • Built-in fan

175265CH: 15VDC @ 10A

• Output current: 15A max.

• Over-voltage, over-current, short-circuit protection • Input voltage: 110VAC @ 60Hz

175257CH: 15VDC @ 15A

• Output current: 25A max. (22A continuous @ 13.8VDC)

• Over-voltage protection @ 16.5V • Short-circuit protection @ 27.5A

• Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)



175265CH



175257CH



175249CH

Part No.	Mfr. Cross Ref. No.	Output Voltage	Size (L"xW"xH")	Wt. (lbs.)	1	10	25
175265CH	DPS150A	2-15VDC	5.7 x 6.2 x 4.0	12.0	\$149.95	\$134.95	\$129.95
175257CH	SPS250A	9-15VDC	5.6 x 6.2 x 4.0	3.8	\$159.95	\$143.95	\$129.56

### 250-Watt

- Color-coded adjustment knob & output terminals • Adjustable voltage/current outputs • 5A @ 250V fuse
- Input voltage: 110VAC @ 50-60Hz • Constant voltage & current operation • Isolated ground

Part No.	Mfr. Cross Ref. No.	Output Voltage	Size (L"xW"xH")	Wt. (lbs.)	1	10	25
175249CH	DPS5050	0-50VDC	4.9 x 7.7 x 6.7	13.8	\$189.95	\$179.95	\$171.49

## 150MHz 2-Ch Digital Oscilloscope

Color and Monochrome with RS-232/USB/Parallel Interfaces

- Bandwidth (-3dB): 150MHz
- Real-time sample rate: 100MS/s maximum on each channel; equivalent: 25GS/s



INSTEK

- 2 channels with 8-bit vertical resolution
- Record length 125k/CH • FFT function
- Auto set vertical, horizontal, and trigger level
- 15 memory settings
- Vertical sensitivity: 2mV/div – 5V/div
- Time base range: 1nS/div – 10S/div
- Trigger sensitivity: DC – 25MHz: 0.35div or 3.5mV; 25MHz – 150MHz: 1.5div or 10mV
- Input voltage: 100-240VAC @ 50-60Hz
- Frequency counter: 6 digits ±50ppm; AC coupled, 10Hz – 150MHz • Two-year warranty
- Size: 12.2"W x 10.0"D x 5.6"H • Weight: 9.3 lbs.

229307CH: Monochrome scope

229358CH: Monoch. w/ RS-232/USB/parallel interface

229366CH: Color with RS-232/USB/parallel interface

Includes: BNC cable, power cord & operations manual

Part No.	Product No.	1	5
229307CH	GDS-820	<b>SALE</b> \$1,008.65	\$916.95
229358CH	GDS-820S	\$1,259.95	\$1,196.95
229366CH	GDS-820C	\$1,439.95	\$1,367.95

Blue Part No. = Limited Quantity Available

## Handheld 2MHz Digital Oscilloscope with DVM850 Multimeter

- 10MHz for repetitive signals; 2MHz for single shot events
- Input impedance: 1MΩ/20pF
- Max. input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 64 x 128 pixels
- Vertical resolution: 8-bit
- Timebase range: 0.2µs to 1 hr./div
- Input sensitivity: 5mV to 20V/div
- Trigger mode: run, normal, once, and ± slope



valleman

- Linearity: ±1 bit • Screen hold
- True RMS and dB measurements
- High contrast LCD display with 3.3" viewing angle
- Recommend 9VDC @ 300mA power supply (133891CH, pg 175)
- Batteries not included (recommend 151087CH, pg 183) • Weight: 1.0 lb.

Includes: DVM850 multimeter (below) and insulated BNC-to-alligator clip measurement probes

DVM850:

- 6-functions
- 3 1/2 digit w/ backlight, 2000 count
- Data hold function
- DC voltage ranges: 200mV to 100V
- AC voltage ranges: 200/600
- DC current ranges: 200µA to 10A
- Resistance ranges: 200Ω to 2MΩ
- Diode, transistor and continuity test
- Power supply: 9V battery (included)
- Size: 2.7"W x 1.2"D x 5.4"H



355207CH (DVM850) can be purchased separately, pg 210

Part No.	Description	1	5
355485CH	2MHz Oscilloscope w/ DMM (HPS10 + DVM850)	\$194.95	\$185.25

Color Code Legend
New Sale Lower\$ QtySave

Order 24/7 Toll Free 1-800-831-4242



## Handheld 5MHz Digital Oscilloscope w/ True-RMS Multimeter

- 5MHz bandwidth; 25MS/s sampling rate
- Auto power off
- RS-232 PC interface
- 160 x 160 pixel graphical display with backlight
- Vertical sensitivity: 10mV – 200V per div. (14 div.)
- Single channel with 1MΩ impedance
- 4000-count dual display with analog bargraph
- Resolution: 100uV maximum
- **DC voltage ranges:** 400mV to 1000V
- **AC voltage ranges:** 400mV to 700V
- **DC/AC current ranges:** 400mA to 20A
- **Resistance ranges:** 400Ω to 40MΩ
- **Capacitance ranges:** 40nF to 100μF
- **Frequency ranges:** 1Hz to 5MHz
- DBm, diode and continuity test
- Max/Min/Average w/ sampling rate & graphical plot
- Size: 4.2"W x 2.2" D x 8.3"H • Weight: 1.8 lbs.



EXTech INSTRUMENTS



**Includes:** Protective holster, built-in stand, Windows® 95-XP compatible software, RS-232 cable, 6 AA batteries, fuse, test leads, and alligator clips

Part No.	Product No.	1	5
245930CH	381285	\$398.95	\$378.95

## Handheld 20MHz Digital Oscilloscope & Multimeter

- 4-in-1: digital oscilloscope, DMM, frequency counter & logic analyzer
- **Oscilloscope:** 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- **Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- **Digital multimeter:** 3½-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage 400mV-600V; AC current 40μA-400mA; DC current 400μA-400mA; resistance 400Ω-40MΩ; continuity & diode testing
- **Frequency counter:** 5Hz-20MHz; 5 digit max.; autoranging; AC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
- **Oscilloscope probes:** Use P/N 22891CH or 216047CH, pg 217
- Battery required for portable use (see below)
- Size: 10.0"L x 5.0"W x 2.0"H
- Weight: 9.2 lbs. • One-year warranty



162430CH

Part No.	Description	1	5
162430CH	20MHz digital scope	\$749.95	\$712.95
162974CH	Logic probe	59.95	53.95
163141CH	Rechargeable battery	45.95	41.49
162966CH	RS-232 cable & software	26.95	24.25
221946CH	Scope probe	24.95	23.69

## Fluke 123 20MHz Industrial Scopemeter® with FlukeView Software

### Digital Scope, 15-Function Digital Multimeter & Recorder

The Fluke 123 is the ideal choice for troubleshooting industrial machinery, instrumentation, and power systems. Automatically recognizes signal patterns and sets up correct triggering, timing, and amplitude for stable displays.

- **Recorder:** dual-channel TrendPlot™
- **Digital Scope:** dual-input 20MHz oscilloscope with 1.25GS/sec. repetitive sampling rate
- **Digital Multimeter:** dual-input 5000-count True RMS meter with ohms, capacitance & temperature
- Size: 4.5"W x 2.0"D x 9.1"H • Weight: 5.8 lbs.

### FlukeView Software (Version 3.04)

- Documenting: transfer screens, waveforms & data to your PC for printing or importing to other programs
- Archiving: store and retrieve waveforms with text annotations and create your own library
- Analysis: gather valuable data and enable cursor measurement, extend recording of up to four user-selected measurements, upload waveforms and use cursors for detailed measurements
- Compatible with Windows® operation system



Part No.	Product No.	Price
203131CH	Fluke 123S	\$1,099.95

♦ Refurbished = Backed by Jameco ♦ Blue P/N = Limited Qty Available

DMMs on Pages 211 – 214



## Fluke 190 Series 200MHz Scope-Meters w/ 5000-Count DMMs

### Color and B/W

With up to 200MHz bandwidth, 2.5 GS/s real-time sampling and a deep memory of 27,500 points per input, they're ideal for engineers who need the full capabilities of a high-performance oscilloscope in a handheld, battery-powered instrument.



222383CH

- Dual-input – 200 or 100MHz bandwidth
- Up to 2.5 GS/s real-time sampling per input
- Connect-and-View™ automatic triggering and a full range of manual trigger modes
- Digital Persistence for analyzing complex dynamic waveforms like on an analog scope
- Fast display update rate for seeing dynamic behavior instantaneously
- Automatic capture and replay of 100 screens
- 27,500 points per input record length using ScopeRecord mode • TrendPlot paperless chart recorder for trend analysis up to 22 days
- Up to 1000V independently floating isolated inputs
- Waveform reference for visual comparisons and automatic pass/fail testing of waveforms
- Vpwm function for motor drive and frequency inverter applications
- 1000 V CAT II and 600 V CAT III safety certified
- Four-hour rechargeable NiMH battery pack

**211220CH:** Includes FlukeView software

**SALE**

**Includes:** Test leads, probes and manual

Part No.	Product No.	1	5
222383CH	FLK-199C (200MHz) color	\$2,899.95	\$2,754.95
211220CH	FLK-199B (200MHz) ♦	1,999.95	1,818.81

♦ Blue P/N = Limited Qty Available ♦ ♦ Refurbished = Backed by Jameco

## 50MHz Digital PC-Based Oscilloscope, Spectrum Analyzer and Transient Recorder

- Sampling frequency: 1.25kHz–50MHz real-time; 1GHz repetitive
- Input impedance: 1MΩ/30pF
- Parallel Port Interface
- Inputs: 2 channels, 1 external trigger input
- Max. input voltage: 100V (AC and DC)
- Power required: 9V to 10V @ 1000mA (recommend P/N 100888CH, pg 175)



velleman

- **Oscilloscope:**
  - Timebase: 20ns–100ms per division
  - Input sensitivity: 5mV–15V per division with auto step-function
  - Recording length: 4096 samples per channel
- **Spectrum Analyzer:**
  - Frequency range: 0 to 25MHz
- **Transient Recorder:**
  - Time scale: 20ms/div–2000s/div
  - Max. recording time: 9.4 hours/screen
  - Max. number of samples: 100/s

**System requirements:** IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM

**Includes:** 2 test leads, PC parallel cable, manual and CD-ROM software

Part No.	Product No.	1	5
200184CH	PCS500AU	\$478.95	\$429.95

## Handheld 5MHz Oscilloscope with 4000-Count Digital Multimeter

- 128 x 128 pixel graphic STN LCD
- E/L backlight
- PC interface via RS-232
- Memory and recall for 4 values
- Temperature measurement

### Oscilloscope:

- DC-5MHz bandwidth; 20MS/sec. sampling rate; single channel
- Vertical axis: 3 steps (±0.5/5/50 volts) with 4 divisions
- Horizontal axis: 16 steps (800ns/div to 26.2ms/div) in 8 divisions
- Trigger: auto and internal mode, slope and 5 trigger level selectable
- Text display for peak to peak, min./max. voltage and frequency



221962CH

METEX®

### Digital Multimeter:

- 3½-digit with 43 segment bargraph
- Auto ranging: triple display for related reading; data and range hold; auto/min/max hold and relative offset
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 4V – 750V
- **DC/AC current ranges:** 400uA – 400mA
- **Resistance ranges:** 400Ω – 40MΩ
- **Frequency ranges:** 4kHz – 4MHz
- **Temperature ranges:** -40°C – +1200°C
- **Capacitance ranges:** 4nF – 400μF
- Diode and continuity
- Size (unit): 3.4"W x 1.5"D x 8.0"H
- Weight: 3.9 lbs.

**SALE**

**Includes:** Manual, power adapter and test leads

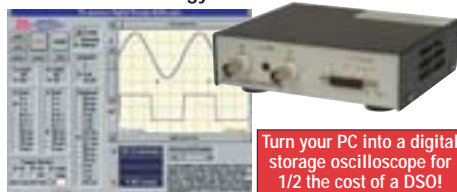
Part No.	Description	1	5
221962CH	MS-1280	\$329.95	\$313.49
221938CH	RS-232 cable & software	19.95	15.25
221946CH	Scope probe	24.95	23.69
221954CH	Holster	4.95	3.75

Detailed specifications for Oscilloscopes

[www.Jameco.com/scope](http://www.Jameco.com/scope)

## PC-MultiScope 20MHz 2-Channel Digital Oscilloscope

mission technology



Turn your PC into a digital storage oscilloscope for 1/2 the cost of a DSO!

- 100MHz sampling; dual channel
  - Chart recorder and FFT mode
  - 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
  - 0-4MHz sine and square wave signal generator
  - Triple power supply: 5VDC @ 500mA and  $\pm 0-8VDC$  @ 250mA
  - One-year warranty
  - Size: 4.3"L x 5.0"W x 1.5"H • Weight: 3.8 lbs.
- Includes:** Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

Part No.	Description	1	10
163230CH	PC-MultiScope 3	\$579.95	\$529.95

## 20MHz 2-Channel Analog Oscilloscope

**EZ DIGITAL**

Blue CRT for higher resolution!



- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2 $\mu$ s/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50-60Hz, 45W
- Two-year manufacturer's warranty
- Size: 16.4"L x 12.6"W x 5.3"H • Weight: 20.8 lbs.

**Includes:** Two (X1/X10) 40MHz probes, power cord, manual, and block diagram

Part No.	Product No.	1	5
136098CH	OS5020	\$399.95	\$385.95

## 20MHz 2-Channel Analog Oscilloscope with 1MHz Function Generator

Basic specs same as OS5020 (above)

### Function generator

- Frequency range: 0.1Hz to 1MHz (7 ranges)
- Output waveforms: sine, triangle, square, TTL pulse
- Output impedance: 50 $\Omega$
- Output voltage: 14Vp-p
- Size: 12.6"L x 12.6"W x 6.8"H • Weight: 23.8 lbs.
- Two-year manufacturer's warranty



2 Instruments in 1

**EZ DIGITAL**

**Includes:** Two X1/X10 40MHz probes, power cord, manual, BNC to alligator, and cable

Part No.	Product No.	1	10
94650CH	OS5020G	\$529.95	\$499.95

## 20MHz 2-Channel Analog Oscilloscope with Built-in Component Checker

- 6" rectangular CRT with internal graticule
- Built-in component checker/tester for resistors, capacitors, coils, diodes
- Vertical sensitivity: 5mV/div to 20V/div in 12 calibrated steps (1-2-5 sequence)
- Input impedance: 1M $\Omega$ , 20pF
- Max. input (vertical amplifier): 300VDC or AC peak
- Horizontal sweep time: 0.2 $\mu$ s/div to 0.5s/div in 20 calibrated steps (1-2-5 sequence)
- Internal trigger sensitivity: 20Hz to 20MHz
- Size: 17"L x 14"W x 5.75"H • Weight: 15.5 lbs.



**Protek**

**Includes:** Two X1/X10 60MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
201857CH	P-3502C	\$394.95	\$375.19

## 20MHz 2-Channel Analog Oscilloscope with Alt-Mag and 1mV/div Sensitivity

- Large 6" CRT with internal graticule
- Alt-Mag sweep for simultaneous displays of the main and X5 magnified trace
- Auto-focus
- Input voltage: 100V, 120V, 220V, 240V @ 50-60Hz (selectable)
- Size: 14.8"L x 13.4"W x 5.5"H • Weight: 24 lbs.

**SALE**

**Protek**

- **Vertical Amplifier**
- Sensitivity – 1mV/div to 1V/div (X5 Mag); 5mV/div to 5V/div in 10 steps (1-2-5 seq.)
- Bandwidth: (-3dB): DC to 20MHz
- Input impedance: 1M ohms, 25pF
- Maximum input voltage: 400V (DC or AC peak)
- **Horizontal Sweep**
- Sweep time: 0.1 $\mu$ s/div to 0.2S/div in 20 steps (1-2-5 seq); X5 mag: 20nS/div to 40mS/div
- **Triggering**
- Sensitivity: Internal – DC to 2MHz: 2 divisions; 2MHz to 20MHz: 3 divisions

**Includes:** X1 and X10 probes, power cord & manual

Part No.	Product No.	1	5
220679CH	PROTEK 6502	\$429.95	\$408.45

## 100MHz 2-Channel Analog Oscilloscope

- 2-channel dual trace
- Delay line
- Auto focusing according to intensity
- Size: 16.9"L x 12.6"W x 5.5"H
- Weight: 22.8 lbs.
- Two-year warranty

**Includes:** Two (X1/X10) 100MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
121179CH	OS5100	\$999.95	\$949.95

## 100MHz Delayed Sweep Analog Oscilloscope w/ Frequency Counter 2 Channel, 4 Trace

- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 2MHz
- Bandwidth: 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC
- Rise time: 3.5ns or less • Weight: 17.6 lbs.



**EZ DIGITAL**

**Includes:** Two X1/X10 100MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
190932CH	OS5100RB	\$1,199.95	\$1,139.95

## Modular Oscilloscope Probes



- Hook and pointed probes
- 216047CH/236777CH: with IC test ground cover and spring ground contact • Length: 5'
- Alligator clip ground wire • BNC male connector
- Maximum input voltage: 600V

Part No.	Bandwidth ( $\pm 3dB$ )		Impedance (R/C) *	
	Attenuation		Attenuation	
	x1	x10	x1	x10
22891CH	6MHz	60MHz	1M $\Omega$ /180pF	10M $\Omega$ /22pF
216047CH	6MHz	100MHz	1M $\Omega$ /47pF	10M $\Omega$ /16pF
236777CH	6MHz	250MHz	1M $\Omega$ /47pF	10M $\Omega$ /14pF

\* with 20pF oscilloscope input

Part No.	Mfr. Cross Ref. No.	1	10	50
22891CH	LF101E	\$24.95	\$22.46	\$20.21
216047CH	HF-9100	34.95	29.95	26.95
236777CH	HP-9250	45.95	43.39	37.25

## PROBE MASTER Oscilloscope Probes

Designed for use with Tektronix and Hewlett Packard oscilloscopes.

- 3 position switch: x1, ref, x10
- Bandwidth @ 3dB: 10MHz (x1); 150MHz (x10)
- Loading: 57pF, 1M $\Omega$  (x1); 15pF, 10M $\Omega$  (x10)
- Low-resistance gold contacts
- Cord length: 5'



174473CH

**SALE**



Part No.	Product No.	1	10
174473CH	4901-02 (150MHz)	\$49.95	\$44.99
212214CH	4915 (150MHz)	\$123.69	\$112.45
212257CH	4915A (250MHz)	149.95	142.49

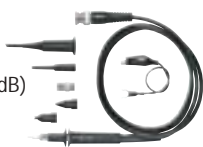
Blue Part No. = Limited Quantity Available

Detailed specifications for Oscilloscopes @ [www.Jameco.com/scope](http://www.Jameco.com/scope)



## Pomona® 100MHz Probe Set

- Complete accessory kit included
- Attenuation: x1/x10
- Bandwidth: 15/100MHz (-3dB)
- Rise time: 23.33/3.5ns
- Input resistance: 1/10MΩ
- Capacitance: 64/10.5pF
- Compensation range: 10-60pF • 48" cable



Part No.	Product No.	Description	1	10
156451CH	4550B	Probe kit .....	\$51.95	\$46.95

## 17MHz Logic Probe

- Max input freq.: 17MHz
- Minimum pulse width: 30ns
- Input impedance: 1MΩ
- Pulse flash time: 500ms
- Audible tones for high and low
- Power supply protection: ±20V
- TTL threshold: Lo = 0.8V ±0.2V, Hi = 2.3V ±0.2V
- CMOS threshold: Lo = 30% VCC, Hi = 70% VCC
- Size: 7.7"L x 1.0"W x 0.6"H



Part No.	Description	1	10	25
149930CH	Logic probe .....	\$29.95	\$26.99	\$24.29

## Logic Pulser

- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continuous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10μs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H



Part No.	Description	1	10	25
24601CH	Logic pulser .....	\$21.95	\$19.76	\$17.78

## 100MHz Logic Analyzer USB Interface

DigiView™ is a new 18-channel, 100MHz logic analyzer with professional quality and high portability. DigiView™ uses a deep-capture buffer and real time hardware compression to achieve long period captures without reducing resolution.



- 18-channels, 100MHz
- USB interface and power source for portability
- Real time hardware compression
- Compression ratio up to 256,000:1
- Trigger on rising, falling, or transition of any channel
- Pre-trigger and post-trigger data capture
- Captures up to 5 minutes of data @ 10ns resolution



Part No.	Description	1	5
256866CH	USB logic analyzer .....	\$498.95	\$474.09
256874CH	Cable replacement .....	29.95	28.49
256882CH	Grabber clip set (10) .....	29.95	28.49

## 1.5GHz Frequency Counter

### 2 Channels

- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Frequency range: 0.1Hz to 150MHz (A input); 50MHz to 1.5GHz (B input)
- Resolution: 0.1nHz to 10Hz (A input); 0.1Hz to 100kHz (B input)
- Frequency, period, totalize, RPM
- Size: 10.3"L x 10.0"W x 3.2"H • Weight: 5.3 lbs.
- One-year warranty



Includes: Fuse, manual and BNC cable

Part No.	Product No.	1	5
55790CH	FC-7150 .....	\$284.95	\$259.95

## 2MHz Sweep Function Generator with Frequency Counter

- Frequency range: 0.02Hz-2MHz in 7 ranges
- Sweep width: 1:1 to 100:1; rate: 20ms to 25s (.5Hz-50Hz)
- Output impedance: 50Ω ±5%
- Frequency counter range: 0.2Hz to 50MHz
- Maximum input voltage: 150VRMS @ 1kHz
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Size: 10.3"L x 10.0"W x 3.2"H
- Weight: 5.8 lbs. • One-year warranty



Includes: Probe and detachable power cord

Part No.	Product No.	1	5
94676CH	FG7002C .....	\$329.95	\$296.95

## 2MHz & 10MHz Sweep Function Generators w/ Frequency Counter

### Function Generator

- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges (192671CH); 1Hz to 10MHz (221911CH)
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Output impedance: 50Ω ±10%
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s



### Frequency Counter

- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sinewave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Maximum input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Data logging and graphic software
- Size: 11.0"L x 8.2"W x 3.7"H • Weight: 13.4 lbs.

Includes: Coax and power cable, manual, serial cable and software

Part No.	Description	1	5
192671CH	2MHz/2.7GHz .....	\$319.95	\$255.96
221911CH	10MHz/2.7GHz .....	417.95	396.99

## 2MHz & 3MHz Function Generators w/ Frequency Counter

### Function Generator

- Wave forms: sine, triangle, square, TTL, and CMOS output; 229260CH has ramp
- Frequency ranges: 229251CH: 0.2Hz – 2MHz in 7 ranges; 229260CH: 0.3Hz – 3MHz in 7 ranges
- Output amplitude: >10Vp-p into 50Ω load
- Output impedance: 50Ω ±10%
- DC offset range: <-5V to >+5V into 50Ω load
- Voltage controlled frequency function
- Variable DC offset control



229251CH

INSTEK



229260CH

### Frequency Counter

- Input voltage: 115/230VAC @ 50-60Hz
- Weight: 4.4 lbs. • Two-year warranty
- 229251CH:
  - 4-digit LCD display
  - Ranges: 0.2Hz to 2MHz internal only; with resolution of 0.1Hz to 1kHz
  - Size: 9.1"W x 11.0"D x 3.7"H
- 229260CH:
  - 6-digit LCD display
  - Ranges: INT/EXT switch, 0.3Hz to 3MHz internal and 5Hz to 150MHz external; resolution of 10nHz to 0.1Hz
  - Size: 9.9"W x 11.5"D x 3.6"H

Includes: Power cord, operations manual and leads

Part No.	Product No.	Description	1	5
229251CH	GFG-8020H	2MHz .....	\$259.95	\$246.95
229260CH	GFG-8216A	3MHz <del>\$299.95</del>	279.95	251.99

## METEX® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

- Function generator capable of generating seven forms of waves (sine, square, triangle, skewed sine, ramp, pulse, and TTL square wave) in seven frequency ranges from 0.2Hz to 2MHz
- Universal counter capable of measuring frequency ranges from 5Hz to 1.3GHz
- DC power supply capable of generating 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- Digital multimeter with ranges of: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400Ω to 40MΩ), capacitance (4nF to 400μF) and forward resistance of a semiconductor junction in kΩ
- Size: 14.5"W x 14.0"D x 7.0"H
- Weight: 37 lbs. • One-year warranty



Less Bench Space – Great Convenience

Includes: Manual, cables and software

Part No.	Product No.	1	5
160864CH	MS9150 .....	\$549.95	\$499.95

Detailed specifications for Function Generators

[www.Jameco.com/function](http://www.Jameco.com/function)



## 2MHz Function Generator

- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- DC offset voltage from 0 to  $\pm 10V$ ; can be superimposed to output waveform
- Variable waveform/duty cycle symmetry
- Output voltage: 20Vp-p (open circuit), 10Vp-p (into 50 $\Omega$ )
- Input voltage: 110V/220V 50-60Hz
- Size: 10.0"L x 8.0"W x 3.0"H • Weight: 5.4 lbs.
- One-year manufacturer's warranty

**Includes:** Cord, BNC to clip cable, fuse and manual

Part No.	Product No.	1	5	10
66069CH	FG8002	\$189.95	\$179.95	\$169.95



## 3MHz Function Generator

- Square, triangle, and sine waves; TTL and CMOS pulse outputs
- Frequency: 0.3Hz to 3MHz in 7 ranges
- Output impedance: 50 $\Omega \pm 10\%$
- CMOS output level: 4Vpp,  $\pm 1V$ pp to 14.5Vpp;  $\pm 0.5V$ pp adjustable
- DC offset:  $< -5V$  to  $> +5V$  into 50 $\Omega$  load
- Variable controlled frequency input
- Variable DC offset control
- Signal polarity invert button • Duty cycle control
- Size: 9.6"W x 11.5"D x 3.7"H • Weight: 4.4 lbs.

Part No.	Product No.	1	5
222594CH	FG2C	\$239.95	\$234.95



## 5MHz Function Generator

Engineered for high reliability and user convenience.

- Waveforms: sine, square, triangle, and ramp
- 0.5 to 5MHz
- 100% DC offset
- Variable duty cycle
- Output impedance: 50 $\Omega$
- Coarse and fine tuning
- Size: 10.4"W x 11.7"D x 3.4"H
- Weight: 6.2 lbs. • Two-year warranty

Part No.	Prod. No.	Description	1	5
160469CH	BK4011A	0.5 to 5MHz	\$314.95	\$299.95



## 150kHz Sine/Square-Wave Audio Generator

Small and convenient, this audio generator can be used to test telco and audio equipment.

- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Output impedance: 600 $\Omega$
- One-year manufacturer's warranty
- Size: 5.9"L x 3.2"W x 0.8"H

**Includes:** 9VDC battery

Part No.	Product No.	1	10
166334CH	BK3001	\$76.29	\$69.35



Blue Part No. = Limited Quantity Available

## Pocket IR Thermometer with Laser Pointer

The pocket IR thermometer measures the surface temperature of objects which are difficult to reach or unsafe to contact. It also measures hot spots in electrical panels and equipment. In-process temperature measurements. With a 6:1 ratio field of view and built-in laser for improved aim, it covers 90% of surface applications for temperature measurement.

- Temperature range: -58°F to 518°F (-50°C to 270°C)
- Built-in laser pointer to improve aim
- F/C switchable
- Fixed emissivity (0.95) covers 90% of surface applications
- Visual overrange indicator
- 6:1 field of view • Pocket size meter
- Data hold and max hold
- Size: 3.8"L x 2.0"W x 0.9"D

**Includes:** 2 AA batteries

Part No.	Description	1	5
219361CH	Pocket IR thermometer	\$59.99	\$56.99

**EXTECH**  
INSTRUMENTS



## Non-Contact Infrared Thermometers w/ Laser Pointer

- Built-in laser pointer identifies target area
- Field of view: 6:1 (6" distance measures 1" target)
- Automatic data hold when trigger released and auto power off
- Fixed 0.95 emissivity covers 90% of surface application

**Includes:** 9V battery

- 236451CH:**
- Temperature range: -4°F to 500°F (-20°C to 260°C)
  - Basic accuracy:  $\pm 3\%$  of reading
  - Backlighting illuminates display for taking measurements at night or in areas with low background light levels
  - Size: 6.7"L x 1.7"W x 1.6"D

- 211588CH:**
- Temperature range: 0°F to 600°F (-20°C to 320°C)
  - Basic accuracy:  $\pm 2\%$  of reading
  - 2000-count backlit LCD display
  - Audible and visible over-range indicators
  - Size: 8.3"L x 3.5"W x 1.5"D

Part No.	Product No.	1	10
236451CH	42500	\$79.95	\$74.95
211588CH	42529	88.95	84.50

**EXTECH**  
INSTRUMENTS



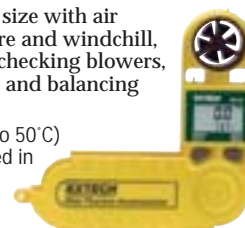
## Mini Thermo-Anemometer

Waterproof, pocket size with air velocity, temperature and windchill, all in one. Ideal for checking blowers, fans, exhaust hoods and balancing AC/HT ducts.

- 0°F to 122°F (-18°C to 50°C)
- Measures wind speed in ft/min, MPH, m/s, km/h, knots and Beaufort force
- Large dual display for air velocity and temperature
- Water resistant housing floats and drop tested to 6'

**Includes:** CR2032 lithium battery and lanyard

Part No.	Description	1	5
218085CH	Mini thermo-anemometer	\$88.95	\$84.49

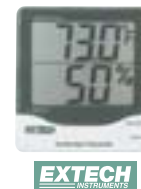


## Temperature/Humidity Meter with Min/Max Memory

- Displays (%) relative humidity and temperature (°C/°F) simultaneously
- Min./Max. memory on both relative humidity and temperature with reset function
- Temperature range: 14°F to 140°F (-10°C to 60°C)
- Humidity range: 10% to 99%
- 1" high readout • Size: 4.3"L x 3.9"W x 0.8"Thick

**Includes:** Built-in tilt stand, AAA battery, and wall mounting bracket

Part No.	Description	1	10	25
198045CH	Temp./humidity meter	\$36.95	\$35.09	\$33.35



## Digital Compass and Stopwatch

Find your way with this digital compass and stopwatch combo.

This amazing digital compass will point you in the direction of high adventure. With a 2° of accuracy, it's smart enough to know exactly where you're heading, anywhere in the world, anytime. And speaking of time, an integrated stopwatch, timer and 12/24 hour clock are also included in this compact, water-resistant little wonder. As a primary guide or as a backup to your GPS, you'd be lost without it!

Part No.	Description	Price
236793CH	Digital compass & stopwatch	\$9.95



## Water Resistant Multi-Function Sports Timer/Stopwatch

- Time calendar display: hours, minutes, seconds, month, date, and day of the week
- Stopwatch accuracy: 1/100 of a second during the first 30 minutes, 1 second after 24 hours
- 12/24 hour time display mode
- Alarm and snooze function
- Size: 2.2"W x 2.7"H x 0.8"Thick

Part No.	Description	1	5
239652CH	Sports timer/stopwatch	\$7.49	\$6.75

Blue Part No. = Limited Quantity Available



For detailed specifications see [www.Jameco.com/environmental](http://www.Jameco.com/environmental)

## Hygro + Infrared Thermometer

Combination humidity meter plus infrared thermometer features a super large backlit dual display. The primary display is user selectable for IR or humidity, while the secondary display always displays ambient temperature. The infrared thermometer has a built-in laser pointer with an 8:1 distance to target ratio.

- °C/°F • Auto power off
- Data hold and MAX
- Remote humidity sensor with 39' coiled cable
- Humidity ranges: 10.0 to 95.0% with ±3.5% accuracy
- Air temperature ranges: -4°F to +140°F (-20°C to +60°C) with ±3°F (2°C) accuracy
- IR temperature ranges: -58°F to +932°F (-50°C to +500°C); ±2° or ±4°F (2°C) accuracy
- Size: 2.8"W x 1.4"D x 5.9"H • Weight: 0.5 lbs.

**Includes:** Stand, holster, probe, battery and case

Part No.	Description	1	5
285974CH	Hygro/infrared thermometer	\$148.95	\$141.49



EXTECH  
INSTRUMENTS

## Electromagnetic Radiation Meter

Electromagnetic radiation is all around us, some good, some bad. But, there's never been an easier, more portable device to detect and measure it until the ZAP Checker. Now you can measure your microwave oven's emissions or take engineering measurements of HF, VHF, or UHF transmissions. ZAP Checker does it all. Its portability, multiple settings, ultra-high sensitivity and expanded bandwidth allows you to search out EMR whenever and wherever needed.

- 10MHz to 4.5GHz

Part No.	Description	1	10
217808CH	ZAP checker	\$129.95	\$114.95



Totally  
Unique

## Digital Light Meter

- Measures in Lux and footcandle ranges
- Range: Lux - 0 - 50,000 Lux (3 ranges); footcandle - 0 - 5,000 Fc (3 ranges)
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling
- 0.5" digit height
- Dimensions (sensor probe): 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs.
- One-year warranty

Part No.	Description	1	10
131764CH	Digital light meter	\$99.95	\$89.95



## Mini-Clip to Banana Test Cables

- Plunger-type action
- Available in black or red
- Positive connection that won't disconnect from components
- Banana plug connection on opposite end
- Length: 3.5' • 20 AWG insulated wire



21864CH

Part No.	Description	1	10	100
21856CH	Black test cable	\$3.95	\$3.55	\$2.99
21864CH	Red test cable	3.95	3.49	2.99

## Pomona® Stackable Banana Test Lead Cables



159898CH 159901CH 159919CH

- 5000V @ 15A • 55°C max.
- 159898CH: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation
- 159901CH: Two 24" leads
- 159919CH: Two 36" leads

Part No.	Prod. No.	Description	1	10	25
159898CH	3782-36	Mini w/ banana	\$7.95	\$7.19	\$6.59
159901CH	B-24-02	Patch cord	9.95	8.95	7.95
159919CH	B-36-02	Patch cord	9.95	8.95	7.95

## Banana-to-Banana Test Leads

- Stackable
- Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 10 per package
- 18 AWG wire



Part No.	Description	1	10	25
77841CH	Test leads	\$22.95	\$20.69	\$18.59

## Double-Banana Plug to Alligator Clips Test Cable

- Red & black rubber boot
- 4" lead wire • Length: 3'



Part No.	Description	1	10	50	100
107422CH	Test cable	\$3.95	\$3.49	\$2.95	\$2.49

## Alligator Clip Leads

- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors



Part No.	Description	1	10	100	1000
10444CH	Alligator leads	\$4.39	\$3.95	\$3.56	\$3.20

## BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.

- Upper connection: two alligator clips - red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector



Part No.	Description	1	10	100	1000
11383CH	BNC cable	\$3.49	\$2.49	\$2.25	\$2.05

## Insulated Alligator Clips

- Color-coded • Insulated barrel
- Jaw opening .375"-0.5"
- Solder strap and pre-drilled hole for 6-32 self threading screw
- Size: 2.3"L x 0.5"W



**Includes:** One red and one black clip

Part No.	Description	1	10	100	1000
70990CH	Alligator clips	\$.39	\$.36	\$.33	\$.30

## 1 1/16" Banana Plugs

- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- Insulating sleeve is threaded to banana plug body
- .1875" lead opening • Size: 1.6"L x 0.4"Dia.



**Includes:** One red and one black plug

Part No.	Description	1	10	100	1000
72194CH	Banana plugs	\$1.59	\$1.49	\$1.25	\$1.09

## 2 1/4" Banana Plugs

- Nine rib spring plug
- Will accept up to 0.1" dia. wire
- Each plug equipped with hole for interconnection
- Insulating sleeve fits snugly over copper post
- Size: 2.3"L x 0.3"W • Set-screw connection





**Includes:** One red and one black connector

Part No.	Description	1	10	100
137525CH	Banana plugs	\$2.95	\$2.12	\$1.84

## Claw Clips and Alligator Clips



248920CH	248954CH	248946CH	256524CH	248938CH	248971CH	248962CH	248989CH
• Sold in increments of 2, 4 or 10  Blue Part No. = Limited Quantity Available							
Part No.	Description	Size	2	4	10		
248920CH	Mini-alligator clip solder/crimp	1.2"L x 0.3"W .....	\$ .28	\$ .25	\$ .23		
248954CH	Red insulator for 248920CH	— .....	.18	.16	.14		
248946CH	Black insulator for 248920CH	— .....	.18	.16	.14		
256524CH	Alligator clip, barrel/screw	1.9"L x 0.2"W .....	.45	.38	.35		
248938CH	Alligator clip, solder/crimp	1.6"L x 0.3"W .....	.52	.48	.42		
248971CH	Red insulator for 248938CH/256524CH	— .....	.21	.19	.17		
248962CH	Black insulator for 248938CH/256524CH	— .....	.21	.19	.17		
248989CH	Claw clip 10A, screw terminal	2.1"L x 0.4"W .....	.45	.44	.40		
249009CH	Claw clip 20A, screw terminal	2.5"L x 0.5"W .....	.55	.50	.45		
248997CH	Claw clip 30A, screw terminal 	2.8"L x 0.6"W .....	.69	.62	.58		

**SALE**

For detailed specifications see

[www.Jameco.com/environmental](http://www.Jameco.com/environmental)



## Pomona® Solderless Banana Plug Sets



- Nickel-plated
- ABS insulation
- Color: 1 red and 1 black per set
- 159863CH: Solderless with safety collar & set screw
- 159855CH: Solderless with set screw
- 159927CH: Solderless double banana plug w/ wire guide

Part No.	Product No.	1	10	25
159863CH	1825-02 set	\$2.65	\$2.50	\$2.38
159855CH	1325-02 set	3.29	2.99	2.69
159927CH	MDP-02 set	4.69	4.38	4.07

## BNC to Standard Double Banana Plugs Quantity SAVE



Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1	10	100
11439CH	BNC banana plug (F)	\$4.95	\$4.49	\$3.99
125225CH	BNC banana plug (M)	5.49	4.67	<span style="color: green;">\$3.50</span>

## Double Banana Plugs

- Dual gold-plated female banana plugs
- Stackable



Part No.	Description	1	10	100
125209CH	Blk banana conn.	\$2.65	\$2.25	<span style="color: green;">\$1.69</span>
125217CH	Red banana conn.	1.99	1.79	1.61

## 1" Screw-Type Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut
- Solder tab hole: 0.06"Dia.
- Size: 1.0"L x 0.5"Dia.

Requires: 0.32" mounting hole

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
71239CH	Binding posts (2)	\$ .99	\$ .85	\$ .69	\$ .59

## 1 3/4" Screw/Solder Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mounting
- Solder post: 0.0625"Dia.
- Size: 1.8"L x 0.5"Dia.

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
77690CH	Binding posts (2)	\$1.09	\$ .95	\$ .79	\$ .69

## Chassis Mount Banana Jack

- 0.158"
- Molded ABS black plastic body
- Nickel plated steel solder lug and washer



Part No.	Description	1	10	100
291936CH	Black banana jack	\$ .67	\$ .52	\$ .48

## Panel Mount Tip Jacks 1/4" – 32 Thread

Mounts in panels ranging in thickness from 0.063" to 0.375".

- Plating: bright tin
- Material: brass
- Insulation: polycarbonate
- 10 per package

Part No.	Cross Ref. No.	Color	1	10	100
256778CH	R1-17-BLK	Black	\$8.59	\$8.15	\$7.75
263863CH	R1-17-RED	Red	8.59	8.15	7.75

## Double Binding Posts – Dual Banana

- Red/black design
- Screw-mount
- 0.72" between posts
- Size: 1.6"L x 1.4"W

Part No.	Description	1	10	100
125196CH	Screw mount bind post	\$3.95	\$3.45	\$3.19

## Single Binding Post to BNC Male

- Binding post with captive thumb nut
- Accepts standard banana plugs
- Operating voltage: 500 VRMS
- Brass nickel plated

See page 117 for BNC Connectors



Part No.	Description	1	10	100
100600CH	Red binding post	\$1.59	\$1.34	\$1.06
100618CH	Black binding post	1.59	1.34	1.06

## BNC to Double Binding Posts – Dual Banana

- Red/black design

Quantity SAVE

Part No.	Description	1	10	100
125233CH	BNC-female	\$4.95	\$4.21	<span style="color: green;">\$3.16</span>
99354CH	BNC-male	5.29	4.76	4.28

## Deluxe Electronic Test Lead Kit

One pair (red & black) of:

- One meter long test lead with a right-angle banana connector on one end
- Insulated probe tip extender
- Modular test probe with banana connector in handle
- Modular hook-style clip test lead with banana connector
- Modular pinch-style clip test lead w/ banana connector
- Insulated alligator clip
- Modular alligator clip with banana connector
- Slide-on IC probe tip adapter and test lead couplers
- Bare spade lug with banana connector



Part No.	Product No.	1	5
222463CH	TL81A	\$98.95	\$93.95

Blue Part No. = Limited Quantity Available

## Universal Test Lead Kit

Includes: 3' black/red cables, 4.5" black/red insulated test probes, 0.8" needle probes, spade terminals, 2 sets of 4 pieces each red/black insulated alligator clips and banana plug

Part No.	Description	1	10	100
168516CH	Universal kit	\$8.95	\$7.95	\$6.95

## Protected Banana Style Multimeter Test Probes

- Threaded/pointed test tip
- 18 AWG wire
- 42" long
- Black and red
- 2 per package

Part No.	Description	1	10	25
77737CH	Protected probes	\$6.49	\$5.85	\$5.25

## Standard Banana Style Multimeter Test Probes

- Black and red
- 18 AWG wire
- 42" long
- 2 per package

Part No.	Description	1	10	25
7745CH	Std. banana probes	\$7.69	\$6.95	\$6.25

## PROBE MASTER® Probe Test Leads

- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"

174625CH Includes:

10 plunger type tips

212222CH Includes:

10 pieces: screw-on alligator clips, spade lugs and spring hooks

Part No.	Description	1	10	25
174625CH	Micro tip test leads	\$29.85	\$28.35	\$26.95
212222CH	Softie test leads	23.85	22.65	21.55

## PROBE MASTER® Probe Kits

- Rating: 1000V 10A
- Gold tips and contacts
- 212231CH: Universal probe kit includes leads with shrouded right angle banana plug, probes, sprung hook probes, alligator clips and spade lugs

212249CH: Electronic deluxe probe kit includes same as P/N 234401CH, plus extender probes, minigator leads, .025" wire wrap leads, pico hooks and pincer hooks

Blue Part No. = Limited Qty Available

Part No.	Description	1	10
212231CH	Universal probe kit	\$36.95	\$35.15
212249CH	Elect. deluxe probe kit	65.95	62.99

## Pomona® Replacement Probe Test Lead Set

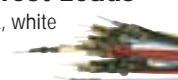
- Set of two PVC 48" insulated leads, probe to banana plug
- Fits all DMMs
- Right-angle multimeter connectors



Part No.	Product No.	1	10	25
155951CH	5519A	\$12.95	\$11.49	\$10.49

## Breadboard-Pin to Breadboard-Pin Test Leads

- 4 each red, yellow, blue, black, white
- 5.9" long
- 20 AWG wire
- 20 per package



Part No.	Description	1	10	25
77825CH	Breadboard pin leads	\$12.95	\$11.69	\$10.49



## Micro Test Clip

- One piece per package

Quantity SAVE

Part No.	Description	1	10	100	1000
153162CH	1.6" micro test clip	\$ .75	\$ .68	\$ .54	\$ .41

## Mini Test Clips

- Two lengths

Includes: One black and one red hooked probe clip

Part No.	Description	1	10	100
114809CH	1.75" mini test clips	\$1.89	\$1.49	\$1.35
114817CH	3.5" mini test clips	1.75	1.55	1.39

## Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.

- Set of five: red, blue, green, black and yellow
- 14"L: clips on both ends
- 26 AWG to 300V CSA/UL approved wire

Part No.	Description	1	10	100	1000
135298CH	Mini test leads	\$11.49	\$10.39	\$9.29	\$8.39

## Pomona® Minigrabber® Test Clip Patch Cord Kit

- One each of 10 colors: black, brown, red, orange, yellow, green, blue, violet, gray and white
- 24" leads; clips on both ends

Part No.	Prod. No.	Description	1	10
156494CH	5523	Patch cord (hook)	\$34.95	\$31.49

## Pomona® 11"L Test Lead Holders

- 155985CH: Max cable dia.: 0.450"
- 155977CH: Max cable dia.: 0.320"
- 155969CH: Max cable dia.: 0.210"

Part No.	Prod. No.	Slots	Color	1	10	25
155985CH	2708B	9	Blue	\$9.95	\$9.45	\$8.98
155977CH	4408	10	Black	9.95	9.45	8.95
155969CH	1508	14	Orange	9.95	9.45	8.98

## How to Test Almost Everything Electronic

**TAB Publishing** Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques.

- Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	1	10
126199CH	How to Test Everything	\$17.95	\$16.15

## Paladin PC Cable-Check™ Tester

Tests standard computer cables for open, shorted and cross-connected wires. PC Cable-Check™ also tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, plus RJ11, and RJ45 telephone plugs. A separate section to check USB-A to USB-B cables, as well a separate section to check female BNC to female BNC cables.

Part No.	Description	1	10
123916CH	PC cable-check™ (battery and manual included)	\$169.95	\$152.95

## BNC Female Connector with 20AWG Lead Wires

Solder the 20AWG wires onto your protoboard, plug the BNC female connector on to your test equipment and you have an instant testing board for varied applications.

- BNC female connector
- 7" 20AWG lead wires

Part No.	Mfr. Cross Ref. No.	1	10	100
256831CH	CBB-069	\$5.39	\$5.15	\$4.89

## BNC to Clip Test Cables

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video & test equipment.

- Micro-clip or mini-clip
- Length: 39"

Part No.	Description	1	10	50	100
11421CH	Micro-clip RG174	\$3.99	\$3.19	\$2.89	\$2.59
11463CH	Mini-clip RG174	4.39	3.99	3.59	3.19

## Pomona® BNC to Minigrabber® Test Clips

- RG 174/U, .100" O.D.
- Rating: 300 V<sub>RMS</sub> max., +50°C (+122°F) max.
- Strain relief: PVC molded directly to connector
- Length: 36"

Part No.	Product No.	1	10
176954CH	5187-K-36	\$21.95	\$19.95

## Pomona® BNC Male w/ Molded Strain Relief to Minigator® Test Clips

- RG 58C/U, .195" O.D.
- Rating: 45 V<sub>RMS</sub> max., +50°C (+122°F) max.
- Jaws open to .187" max.
- Length: 36"

Part No.	Product No.	1	10
176971CH	4532-C-36	\$16.95	\$15.26

## Pomona® BNC Cables

- RG58 C/U 50Ω cable
- BNC male connectors
- Molded strain relief
- Length: P/N 159871CH: 36" P/N 159880CH: 60"

Part No.	Product No.	1	10	25
159871CH	2249-C-36	\$15.95	\$14.39	\$12.95
159880CH	2249-C-60	15.95	15.15	14.39

## RS-232 Mini-Tester with Status LEDs

Tests any RS-232 (DB25) interface and helps to identify equipment that has failed. Seven bicolor LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25.

Part No.	Description	1	10	100
26729CH	Mini-tester	\$11.95	\$10.76	\$9.68

## Miniature RS-232 Breakout Box for Quick Design Changes

Design new interfaces or modify old ones quickly and easily. Completely self-contained. Connectors: male to female DB25.

Includes: 25 each 22 AWG wire jumpers and machine tool sockets

Part No.	Description	1	10	100
11181CH	Breakout box	\$8.95	\$7.61	\$5.71

## RS-232 Loopback Tester

The tester acts as a data verifier by sending data back to the transmission device. Used for diagnostic testing of RS-232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20, and 15 to 17. Connectors: male to female DB25.

Part No.	Description	1	10	100
22728CH	Loopback tester	\$6.95	\$5.95	\$4.45

## RS-232 Line Status Tester

Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19, and 20. Connectors: male to female DB25.

Part No.	Description	1	10	100
14285CH	Check line tester	\$8.95	\$8.09	\$7.25

## RS-232 Signal Adapter/Splitter

- Metal connectors: DB25 female and male, and DB9 male
- Gold-plated contacts

Part No.	Description	1	10	100
105195CH	Tri-port serial adapter	\$7.95	\$6.95	\$5.95

## Flexible Multilink RS-232 Tester & Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20, and 22 on the DTE and DCE sides. Provides signal status at a glance.

Complete cable "breakout" & reconfiguration. Connectors: DB25 male & DB25 female.

- Cable length: 4" • Size: 3.5"L x 3.3"W x 1.0"H

Includes: handy carrying case, 10 jumper wires and a device wiring chart

Part No.	Description	1	10	25
25945CH	Tester/breakout box	\$22.95	\$19.95	\$17.95

For detailed dimensions, please visit our website at [www.Jameco.com](http://www.Jameco.com)

## Variable High-Speed Rotary Tool Kit

A multiple high-speed rotary tool kit with 6-speed selections ranging from 8,000 to 30,000 RPM, along with 40 bits and accessories, provides you all the power and precision you need to tackle almost any cutting, drilling, polishing, sanding or engraving job. With its high-speed output, plus a nylon body, you can grasp the tool lightly to perform fast rough work or delicate craftsmanship. A convenient shaft-lock button provides fast-and-easy accessory bit changing.

- 9" long variable-speed rotary tool
- Drum sander wheel
- 2 felt buffing pads
- 6 disk sanding pads
- 10 rotary grinders
- One-year manufacturer's warranty
- 3 drum sander pads
- Disk sanding arbor
- 7 disk grinders
- Grinder dressing stone
- 4 rotary files
- 2 drill bits
- Wrench



**SALE**

Part No.	Description	Case Dimensions	Wt. (lbs.)	1	5
211289CH	High-speed rotary tool kit	12.0"W x 7.0"D x 3.5"H	3.3	<del>\$42.69</del> \$39.99	\$37.99

## 60-Piece Bit, 1/4" Socket and Driver Tool Kit

This compact kit contains the most popular bits and 1/4" sockets with a comfortable cushioned, reversible ratchet driver handle.



**SALE**

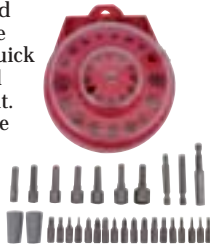
- Drill bits: 1/16", 3/32", 1/8", 5/32", 3/16"
- Socket bits: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2", 5mm, 6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm, 13mm
- Phillips bits: #1, #2, #3
- Phillips Z bits: 1, 2, 3
- Slotted bits: 1/8", 5/32", 3/16", 1/4", 9/32"
- Hex bits: 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
- Torque bits: T-10, T-15, T-20, T-25, T-30, T-40
- Square bits: 1, 2, 3
- 2.4" Magnetic bit adapter
- Reversible ratchet screwdriver
- 7.5" Flexible extension
- Socket adapter
- 6" long nose pliers
- 6" adjustable wrench
- Vinyl zipper case with organizer to find sizes fast
- Size: 8.5"L x 6.5"W x 2.2"H
- Weight: 3.1 lbs.

Part No.	Description	1	5
218261CH	60-piece tool kit	\$26.79	\$24.36

Blue Part No. = Limited Quantity Available

## 30-Pc 1/4" Bit Set with Organizer

A 30-piece bit set supplied in a neat, compact storage drum organizer allows quick access, identification, and selection of the desired bit. All the bits are compatible with power tools, rechargeable drills, and multi-bit screwdriver handles.



Set includes:

- Nut bits: 7/16", 3/8", 11/32", 5/16", 9/32", 1/4", 3/16"
- Hex bits: 3/16", 1/8", 7/64", 5/64"
- Torx bits: T10, T15, T20, T25, T30
- Phillips bits: #0, #1, #2, #3
- Pozz bits: #1, #2, #3
- Slotted bits: #3, #4, #5, #6, #7
- 1 bit holder
- 2 screw aligners

**SALE**

Part No.	Description	1	5
227230CH	30-piece 1/4" bit w/ organizer	\$4.89	\$4.45

Blue Part No. = Limited Quantity Available

## 32-Piece Security Bit Set

These bits match the security fasteners commonly used in today's electronic products.

- Includes: Torx bits: #6, #8 and #10; Tri-wing bits: #1, #2, #3 and #4; Security hex bits: 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16" and 1/4"; Security Torx bits: T8, T10, T15, T20, T25, T27, T30, T35 and T40; Spanner bits: 4, 6, 8 and 10mm; Phillips bits: #1, #2, #3 and #4; and 60mm magnetic bit extension that fits 1/4" hex driver

Part No.	Description	1	10
223829CH	32-piece security bit set	\$11.95	\$10.75

## 9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .125"
- Shank diameter: .125"
- Each kit will vary in contents of bit sizes



Part No.	Description	1	10	50
131676CH	9-piece drill bit kit	\$9.95	\$8.95	\$7.95

## High-Speed Steel Step Drill Bits

Drill multiple holes in thin material with the same bit, faster and easier. Each bit does the work of many drill bit sizes. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick.

- 229657CH: • Shank size: 3/8" • 2.4" long
- 172401CH: • Shank size: 1/4" • 2.5" long

Part No.	Description	1	10	25
229657CH	3/16" - 7/8" 13-step	\$14.95	\$13.45	\$12.10
172401CH	3/16" - 1/2" 6-step	9.95	8.95	7.95

## PC Board Drill Bits

**Quantity SAVE**

- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Shank dia.: .125"
- Use for drilling holes in glass PC boards

Part No.	Drill Dia.	No.	Application	1	10	100
16619CH	.021"	75	Miscellaneous	\$1.55	\$1.32	\$ .99
16580CH	.040"	59	Plated thru holes	1.75	1.49	1.12

## 14.4 Volt Tool Kit

This tough and economical set of cordless rechargeable tools puts home improvement power in your hands in a hurry.



**NEW**

4 Tools Just \$54.95

The kit comes with two interchangeable 14.4V batteries and a quick charger so you never run out of power. Everything is contained in one convenient case so you won't forget one of your essential tools.

- **Drill/driver**—Variable speed reversing with a 3/8" keyless chuck, a 16 position clutch, metal gears, and bronze bushings
- **Detail sander**—Triangle shaped for sanding in small and difficult-to-reach places; counter-balanced drive shaft with ball-bearing support
- **Jigsaw**—Adjustable base plate, 0.5" stroke, and 1750 SPM operation
- **Flashlight**—Has adjustable head so you can direct the beam where you really need it

Part No.	Description	Price
235504CH	14.4 volt tool kit	\$54.95

## Adjustable Cordless Screwdriver

- Adjustable handle can be used folded or unfolded
- Thumb switch for reverse and forward action
- No load speed: 180 RPM
- Clutch operating torque from 4 to 21kg-cm
- 3.6V rechargeable battery
- Size: 10.5"L x 1.5" Dia.
- Weight: 1.6 lbs.



Includes: 6VDC @ 300mA power supply and screwdriver bits, slotted and Phillips

Part No.	Description	1	10
176680CH	Cordless screwdriver	\$36.95	\$33.26

## Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.



Part No.	Description	Wt. (lbs.)	1	10	25
26702CH	MS398 drill	0.8	\$29.95	\$26.95	\$23.95
26711CH	MS399 stand	1.8	19.95	17.95	15.95

## Lowest Price Guarantee

Found a product at a lower print advertised price?



We'll beat that price by 10% right down to our cost!



## Professional Electronic Technician Tool Kits for Every Situation!

### 27-Piece Technician's Tool Kit

All the essential technician's tools in a durable canvas carrying case.

- In addition to the tools listed in the matrix below, the kit includes:
  - 5" precision range side cutting pliers
  - 5.3" precision range long nose pliers
  - Solder wick
  - Alignment driver
  - Nut screwdriver (1/4")
- Size: 16.2"W x 13.0"D x 3.0"H • Weight: 7.1 lbs.



Part No.	Description	1	5
218229CH	Technician's tool kit	<del>\$94.95</del> \$76.95	\$69.94

### 28-Piece Cellular Phone Services Tool Kit

This kit is perfect for mobile phone repair.

- In addition to the tools listed in the matrix below, the kit includes:
  - 4" micro cutting pliers
  - 5" snipe nose pliers
  - Hot air tip
  - Self igniting micro torch
  - S-needle tip
- Size: 11.9"L x 9.8"W x 1.9"H • Weight: 3.2 lbs.



Part No.	Description	1	5
218202CH	Cellular phone tool kit	\$43.19	\$39.26

### 55-Piece Tech Tool Kit

An assortment of tools for general & precision work for technicians, engineers, students, etc.

- In addition to the tools listed in the matrix below, the kit includes:
  - Screwdriver handle
  - 6-piece mini-hammer set
  - 5 piece of double edge blade
  - PLCC extraction tool
- Carrying case has outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (See pages 211-212)
- Size: 17.6"L x 12.8"W x 4.0"H • Weight: 9.2 lbs.



Part No.	Description	1	5
136311CH	55-piece tool kit	\$124.95	\$112.46

### 51-Piece Tech Tool Kit

Essential kit for electronic machine maintenance and repair jobs!

- In addition to the tools listed in the matrix below, the kit includes:
  - 2 nut drivers
  - Solder pen
- Case features removable pallets, a combination lock and a cushioned black plastic handle
- Size: 12.5"L x 17.5"W x 3.5"H • Weight: 10.4 lbs.



Part No.	Description	1	5
26681CH	51-piece tool kit	\$94.95	<del>\$73.15</del>

### 57-Pc. Master Electronics Tool Kit

Simply every tool needed for field repair or installation. All in a handsome lockable case, with room for spare parts or special equipment.

- In addition to the tools listed in the matrix below, the kit includes:
  - 5" & 6" side cutter
  - 5" & 6" long nose pliers
  - 8" combination pliers
  - 9.5" water pump pliers
  - Testing driver
  - Alignment driver
  - Solder wick
  - Parts tube
  - PVC insulated tape
  - 5-piece file set
  - Oil can
  - 6" stainless scissors
  - Carpenter hammer
- Carrying case has two removable pallets, adjustable compartments, and combination locks
- Size: 18.0"W x 13.0"D x 4.0"H • Weight: 16.0 lbs.



Part No.	Description	1	5
218245CH	Master electronic tool kit	\$124.95	\$117.95

### 100-Piece Professional Electronics Tool Kit

Kit for field technicians and engineers!

- In addition to the tools listed in the matrix left, the kit includes:
  - Computer/polarity circuit tester
  - Mini vacuum cleaner
  - Cassette head cleaning fluid
  - 3.6V cordless screwdriver kit (bits included)
- Aluminum case features removable pallets, surface-type locks, and black plastic handle
- Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.



Part No.	Description	1	5
242851CH	100-piece tool kit	\$199.95	\$189.95

### 114-Piece Tech Service Tool Kit

- In addition to the tools listed in the matrix left, the kit includes:
  - 40-pc socket pack
  - 6" side cutter
  - 6" long nose plier
  - 6" slip joint plier
  - carpenter hammer
  - 3 piece trimmer set
  - stainless steel spring hook
  - 8" combination plier
  - 2 removable pallets
- Size: 18.5"L x 13.8"W x 6.7"H • Weight: 22.8 lbs.



Part No.	Description	1	5
149024CH	114-piece tool kit	\$279.95	\$251.99

### Quick-Reference of Professional Tool Kit Contents

Parts included in kits	218229CH	218202CH	26681CH	136311CH	218245CH	242851CH	149024CH
3-prong holder				1	1	1	1
Anti-static strap				1		1	1
Brush	1		1	1	1	1	1
Crimping tool	1 (7-way)			1 (7-way)	1	1	1
Desoldering pump	1		1	1	1	1	1
Digital Multimeter	1		1			1	
Drill set							1
Files, needle	2-pc		2-pc			6-pc	5-pc
Flashlight	1			1	1	1	1
Forceps							1
Heat sink				1	1		1
IC extractor	1			1	1		1
Inspection mirror					1		1
Measuring tape, 10-foot			1		1		1
Pliers, 8" lineman				1		1	
Pliers, bent needle nose			1	1	1	1	1
Pliers, diagonal cutter			1	1		1	1
Pliers, flat nose			1	1		1	1
Pliers, needle nose							
Pliers, snipe nose		1					1
Scissors			1		1	1	
Screwdriver set	7-pc	12-pc	8-pc	3-pc	8-pc	12-pc	9-pc
Screwdrivers, precision		2-pc	6-pc	6-pc	6-pc	6-pc	6-pc
Solder core	1	1		1	11	1	1
Soldering aid kit, 3-pc		1 (6-pc)	1	1	1	1	1
Soldering iron	1 (30W)		1	1 (30W)	1 (30W)	1 (30W)	1 (25W)
Soldering stand	1		1		1	1	
Tape, electrician	1					1	1
Tweezers	1	1	1	2	1	1	1
Utility components box	1		1		1	1	1
Utility knife	1		1	1	1	1	
Wire stripper							1
Wrench, adjustable	1			1	1	1	1
Wrench, hex key	7-pc		7-pc	7-pc	7-pc	7-pc	7-pc
Wrench set					6-pc	5-pc	10-pc
Total Pieces	27	28	51	55	57	100	114
Price	\$76.95	\$43.19	\$94.95	\$124.95	\$124.95	\$199.95	\$279.95

## Free Technical Support



Our knowledgeable Tech Support department is ready to answer your questions. Just call us!



## Economy Tool Kits for Every Budget!

### 11 & 12-Piece Lightweight Computer-Service Tool Kits

- Both kits include:
  - 2 nut drivers: 3/16", 1/4"
  - 3-claw parts holder
  - 1-pc hex key wrench
  - IC extractor
  - 4-pc screwdriver set
  - Tweezers

Quantity **SAVE**



167206CH

- 167206CH: 11-Piece Tool Kit**
- In addition this kit includes: Clear components, tube holder
  - Size: 8.5"L x 5.9"W x 1.3"H
  - Weight: 1.1 lbs.



14189CH

- 14189CH: 12-Piece Tool Kit**
- In addition this kit includes: 14-16 pin IC inserter/straightener
  - Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.2 lbs.

Part No.	Description	1	10	25
167206CH	11-piece tool kit .....	\$12.95	\$11.01	<b>\$8.26</b>
14189CH	12-piece tool kit .....	16.95	15.26	13.73

### 20-Piece SAE Computer Tool Kit

- The kit includes:
  - 1-pc hex key wrench
  - 30W soldering iron
  - Adjustable wrench
  - Needle nose plier
  - 6-pc screwdriver set
  - 6" solder – Tweezers
  - 8" wire cutter/stripper
  - Clamping tweezers
  - 3-pronged parts retriever
  - Spare parts tube – IC extractor
  - Flashlight with battery – Heavy duty molded case
  - 2 nut drivers (1/4" & 3/16")
- Size: 11.9"L x 9.2"W x 2.0"H • Weight: 3.5 lbs.



Part No.	Description	1	10	100
170966CH	Computer tool kit .....	\$24.95	\$22.46	\$20.21

## Save Money! Buy a Second?

Your company pays you a good dollar for a reason – you're worth a lot to your company when you are creating a solution.

So think about how much time you spend locating tools. At your hourly pay rate, the time lost probably exceeds the cost of a duplicate set of tools.

You may have a well-outfitted bench, but some of us use hand tools in another location. And for some of us, if you spend less time searching for frequently used tools, you could save the company money in the long run and increase your productivity!



**Practical Practices**  
Money Saving Tips for the Engineer

### 24-Piece PC Premium Tool Kit

- 3.2mm x 75mm slotted screwdriver
- #0 x 75mm Phillips screwdriver
- 3 prong holder
- Spring tweezer
- Spare parts tube
- IC extractor • Torch
- Extension bar for ratchet bits
- Adjustable ratchet screwdriver
- Side cutter pliers
- 5mm and 7mm slotted bit
- T10, T15, T20, T25, and T30 Torx bit
- 1/4" and 3/16" nut
- Size: 8.4"L x 5.9"W x 1.4"H



**SALE**

Part No.	Description	1	5
226085CH	24-piece premium tool kit .....	\$17.95	\$14.36

### 26-Piece SAE Hobby Tool Set

- 4-1/2" long nose pliers
- 4-1/2" diagonal cutting pliers
- #1 & #2 Phillips bits
- #1 & #2 pozi bits
- 3/16" & 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 Torx bits
- Driver handle • Compact carrying case
- 3" extension bar for 1/4" drive
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Size: 12.0"L x 9.0"W x 2.0"H • Weight: 1.5 lbs.



Part No.	Description	1	10	25
170069CH	26-pc. SAE tool set ..	\$17.95	\$16.16	\$13.69

### 26-Piece Metric Hobby Tool Set

- 6 screwdrivers: Phillips #0, #1, slotted 0.05", 0.08", 0.09", 0.12"
- 10 bits: 5mm, 6mm, #No.1, #No.2, No.1, No.2, T-10, T-15, T-20, socket adapter
- Stainless steel tweezers • Sockets: 5, 6, 8, 10mm
- Extension bar • Handle • 4" side cutter
- 4" long nose pliers • Plastic carrying case
- Size: 6.4"L x 4.1"W x 2.0"H • Weight: 1.2 lbs.



Part No.	Description	1	10	25
99629CH	26-piece tool set • ...	\$9.99	\$9.09	\$8.25

Blue Part No. = Limited Quantity Available

### 40-Piece Electronic Tech Tool Kit

- The kit includes:
  - Wire cutters/stripper
  - Adapter bit for sockets
  - Pocket clip screwdriver
  - Potentiometer alignment tools
  - T10-T25 reversible Torx screwdriver bits
  - 3/16"-1/2" S.A.E. nut driver sockets
  - 6mm-12mm metric nut driver sockets
  - Slotted and Phillips screwdriver bits
  - 10-pc screwdriver set
  - Extra long 3-claw parts holder
  - IC inserter w/ pin straightener – IC extractor
- Size: 9.5"L x 6.8"W x 1.4"H • Weight: 1.7 lbs.



**Lower \$\$\$**

Part No.	Description	1	10	25
119183CH	40-piece tool kit .....	\$21.95	\$19.76	\$15.80

### Professional Tool Case

- Aluminum framed
- Padded interior and adjustable dividers (6 sections)
- Detachable tool organizer for easy access
- Color: black with aluminum trimmings
- Size: 18"L x 13"W x 6"H
- Wt.: 8.1 lbs. • Blue Part No. = Limited Qty Available



**SALE**

Part No.	Description	1	10
149016CH	Professional tool case • ...	\$33.15	\$31.45

### Aluminum Tool Case

This heavy-duty case is made of lightweight durable aluminum. A single inside panel and adjustable compartments easily carry hand tools, small soldering equipment, hand-held test equipment, and more.



Part No.	Description	1	5
261884CH	Tool case .....	\$51.39	\$44.15

### Heavy-Duty Tool/Equipment Case

Made of lightweight aluminum, this tool case is designed to take rough field use. Case includes tool pallet, egg carton foam lid, and 2.5" thick pre-cut foam bottom. Ideal for carrying fragile instruments, test equipment, and small hand tools.



Part No.	Description	1	5
261876CH	Tool/equipment case .....	\$51.39	\$44.15

### Kwik Change Tool/Parts Tote

Versatile storage tote for organized storage space. Front drop panel reveals four slide-out storage boxes and includes two interchangeable racks and one double deep rack. Bulk storage beneath lid for larger tools and exterior rack for small tool storage. Ruler on front for added convenience.



**SALE**

• Size: 20.5"H x 12"W x 14.5"D

Part No.	Description	1	5
261892CH	Tool/parts tote .....	<del>\$49.85</del> \$44.95	\$42.75

### 2-In-1 Zippered Tool Bag

A high-quality tool tote case that can be used as two separate bags or zipped together as one case. The first bag has two large pouches for documents & paperwork or large items. The second bag contains 20 pockets for tools.



Part No.	Description	1	5
261868CH	Tool/tote case .....	\$24.25	\$22.09

# Tools – Screwdrivers and Nut Drivers

Color Code Legend  
New Sale Lower\$ QtySave

## 17-Piece Offset Ratchet and Socket Driver Set **SALE**

This offset ratchet and socket driver set includes 6 hexagon sockets made from quality hardened carbon steel. The handle features a 1/4" male head drive to accommodate the accompanying bits & sockets.

- Phillips bits: #1 and #2 • Pozi bits: #1 and #2
- Torx bits: T10, T15 & T20 • Slotted bits: 4, 5 & 6mm
- Hex sockets: 3/16", 7/32", 1/4", 5/16", 11/32" & 3/8"
- Reversible driver handle with 1/4" male head

Part No.	Description	1	5
226069CH	Offset ratchet & socket <b>SALE</b>	\$5.49	\$5.25

Blue Part No. = Limited Quantity Available

## Twin Wrench Driver Set

The handle of this twin wrench driver set has two tips, horizontal and vertical for those hard-to-reach areas.

- Non-slip double ended driver
- Three slotted bits: 4mm, 5mm, and 6mm
- Phillips bits: #1 and #2 • Pozi bits: #1 and #2
- Torx bits: 10mm, 15mm, and 20mm

Part No.	Description	1	10
223811CH	Twin wrench driver set	\$3.99	<b>\$3.07</b>

Quantity SAVE

## 6-Pc Long-Neck Screwdriver Set

- Three slotted: 0.09"Dia. x 6.6"L; 0.12"Dia. x 6.6"L; 0.16"Dia. x 9.6"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L

Part No.	Description	1	10	50
99451CH	6-pc. screwdriver set	\$8.95	\$8.06	\$7.25

## 25-Piece Screwdriver Grab Bag

25 assorted sizes and types of screwdrivers in a box. Types may include slotted, Phillips, Torx or star.

Part No.	Description	1	10
235070CH	Assorted screwdrivers <b>SALE</b>	<del>\$15.99</del> \$14.39	\$13.99

## JAMECO Pocket Screwdriver

Phillips & Flat head

- Size: 6"L
- Pen clip for pocket storage

Part No.	Description	1	10	100
127271CH	Pocket screwdriver	\$1.55	\$1.45	\$1.19

## 11-Pc Precision Screwdriver Set

- 0.9, 1.2, 1.4, 1.8, 2.4 and 3mm slotted screwdrivers
- Phillips #00, #0 and #1 screwdrivers
- Awl
- Magnetic pick-up

Part No.	Description	1	5
226093CH	Precision screwdriver	\$4.49	\$4.29

## 7-Piece Insulated Screwdriver Set

- Tapered handle for sure grip
- Precision ground shank
- Hardened, magnetic tips

Includes: 0.4/0.8/1.0/1.2mm slotted; #0/1/2 Phillips

Part No.	Description	1	5
261999CH	Screwdriver set	\$19.25	\$17.59

## 6-Pc Precision Torx Screwdriver Set

- T5 and T6 x 50mm Torx screwdrivers
- T7, T8, T9, T19 x 50mm Torx hex screwdrivers

Part No.	Description	1	5
226106CH	Precision TORX screwdriver	\$12.95	\$12.29

## 6-Pc Precision Screwdriver Sets

34041CH includes: 3/64", 1/16", 5/64", 5/32", 1/8" & 9/64" slotted screwdrivers

34059CH includes: 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers

Part No.	Description	1	10	50
34041CH	Slotted set	\$3.59	\$3.23	\$2.91
34059CH	Phillips set	3.59	3.23	2.91

## 6-Piece Screwdriver & Pliers Set

- One micro cutting nipper
- One micro flat nose pliers
- 2 long-neck slotted: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L
- 2 long-neck Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L

Part No.	Description	1	10	50
99565CH	Screwdriver/pliers	\$13.49	\$11.47	<b>\$8.60</b>

## 7-Piece Nut Driver Sets

- Premium hardened steel sockets
- Large colored handles

261850CH: Metric 5mm, 6mm, 7mm, 8mm, 9mm, 10mm & 11mm

261841CH: SAE 3/16", 1/4", 5/16", 11/32", 3/8", 7/16", 1/2"

Part No.	Description	1	5
261850CH	Metric nut driver set	\$8.99	\$8.65
261841CH	SAE nut driver set	9.89	9.49

## Heat Guns

### 1000-Watt Heat Gun

- Dual heat setting: 600°F/1100°F
- Works with spot dry paints, plaster, spackle, and cure adhesives
- Use with heat-shrink material
- Thaw pipes, frozen locks, and loosen rusted bolts
- Input voltage: 110-120 VAC

Part No.	Description	1	6	12
254924CH	Heat gun	\$42.55	\$41.10	\$36.85

### Heat Gun/Stripper

Dual-Setting

- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts
- UL listed
- Size: 9.3"L x 7.0"W
- Weight: 1.8 lbs.

Part No.	Description	1	10	25
76865CH	Heat gun	\$39.95	\$35.95	\$31.95
217816CH	Heat shrink attachment	1.95	1.85	1.75
217832CH	Air spreader	1.95	1.66	<b>1.24</b>

Quantity SAVE

### Weller® 250-Watt, 3-Setting Industrial Heat Gun

- 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- 120VAC @ 60Hz • ESD safe
- Long-life heater and fan components
- 3-wire grounded plug; 6' cord

Part No.	Product No.	Wt. (lbs.)	1	10
191943CH	6966C	1.2	\$119.95	\$107.95

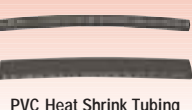
### WAHL® 1,200°F Portable Heat Gun

- Portable and flameless heat
- Temperatures up to 1,200°F (650°C)
- Typical applications: shrink tubing, activate adhesives and potting compounds, form plastics and laminates and preheat flux
- Each cartridge (disposable butane lighter) provides approximately 20 minutes of heat
- Includes disposable gas lighter
- Electronic ignition
- Size: 4.8"L x 0.9"W
- One-year warranty

Part No.	Description	1	10
150691CH	Portable flameless heat gun	\$26.95	\$24.25

ETL listed

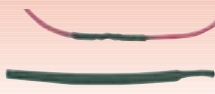
See page 95 for Heat Shrink Tubing.



PVC Heat Shrink Tubing



PVC Heat Shrink Flat Film



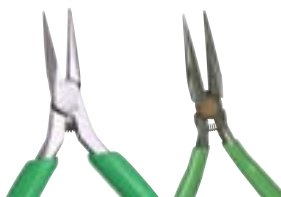
Polyolefin Heat Shrink Tubing



## Xcelite® Needle Nose Pliers

217891CH (submini needle nose):  
Serrated jaws

- Positive gripping of fine wire or subminiature components
- Fine point allows use in confined areas



217891CH

217998CH

217998CH: Smooth jaws

- General purpose for pick-up and wire forming

Part No.	Prod. No.	Description	1	10
217891CH	L4	4" mini needle nose ....	\$14.95	\$13.69
217998CH	LN54G	5" thin long nose .....	14.95	13.46

## Precision 5-Piece Stainless Steel Pliers Set



- Spring return
- Insulated handles

Includes:

One 3.5"L micro cutting nippers and one each 4"L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers

Part No.	Description	Wt. (lbs.)	1	10	25
73120CH	5-piece set	0.6 ...	\$17.95	\$16.16	\$14.54

## Half-Round Long Nose Pliers

- Drop forged steel
- Spring return action
- Length: 4.5"
- Heat treated
- Vinyl grips
- Knurled jaws



Part No.	Description	1	10	50	100
177607CH	Half-round pliers	\$4.95	\$4.49	\$3.95	\$3.59

## 5" Cutting Pliers

Recommended for cutting copper and soft lead wires. Ideal for precise circuit board work. Spring loaded.



Part No.	Description	1	5
261809CH	Cutting pliers .....	\$4.99	\$4.55



More Cutters and Strippers from **Paladin Tools®** see page 232.



## 5.3" Flat and Half-Round Long Nose Pliers

- Stainless steel
- Spring return
- Durable rubber handles
- 5.3" length w/ 1.4" plier nose

35473CH/35490CH: Knurl jaws

195531CH: Smooth jaws

Quantity SAVE

Part No.	Description	1	10	50	100
35473CH	Flat long nose ..	\$5.49	\$4.94	\$3.95	\$2.96
195531CH	Flat long nose ....	4.95	4.49	3.95	3.49
35490CH	Half round .....	5.49	4.94	3.95	2.96

## 5-Piece Pliers Set

- Precision machined heat-treated jaws
- Vinyl insulated handles

Includes: 6.5" needle nose; 7.5" lineman's; 8" slip joint; 8" groove joint & cutting pliers



Part No.	Description	1	5
261905CH	Pliers set .....	\$9.75	\$9.25

## Xcelite® Diagonal Cutters



217921CH

217904CH

217955CH

Manufactured from the finest forged alloy steel with polished head and cushion comfort handles.

- Flush cutting edge
- Cutting edges machine ground and electronically hardened for extended life
- Forged alloy steel w/ polished head
- Handle coil springs for fast cutting action
- ESD safe cushion grips for maximum comfort



217867CH

Part No.	Prod. No.	Description	1	10
217921CH	MS54J	4" oval head-flush .....	\$15.95	\$14.36
217955CH	S475JS	4" relieved head-flush ...	14.95	13.46
217904CH	MS549J	4" tapered head-flush ...	14.95	13.46
217867CH	MS545J	4" slim line tapered head-flush	14.95	13.46

## Cutting Pliers

Flush Cut

- Stainless steel
- Side cutting flush cut
- Leaf spring for smooth controlled action



Part No.	Description	1	5
261788CH	Cutting pliers .....	\$6.95	\$6.55

## We're Listening to Your Requests

Email us 24/7 at  
[NewProducts@Jameco.com](mailto:NewProducts@Jameco.com)  
with suggestions for products you'd like to see in future catalogs.

## Xcelite® Cutters and Pliers



146712CH (6")

146739CH (4")

146721CH (5")

- Spring returns
- 146712CH: Micro series wire cutter – flush; 6"
- 146739CH: Diag. wire cutter – semi-flush; 4"
- 146721CH: Long needle nose pliers – flat; 5"

Part No.	Product No.	1	10	50	100
146712CH	170M .....	\$5.75	\$5.19	\$4.69	\$4.19
146739CH	MS54V .....	13.95	12.95	11.95	10.95
146721CH	MM7776V .....	16.95	15.95	14.95	13.95

## Xcelite® Shearcutter/Pliers Set

- Improved handle grip for control and comfort
- Non-glare black finish carbon steel
- Size (plier): 5.6"L
- Size (shearcutter): 5.2"L



Part No.	Product No.	1	10	25
152055CH	S2K .....	\$15.95	\$14.95	\$13.95

## 4" Diagonal Wire Cutter

- Drop forged steel
- Heat treated
- Vinyl grips
- Spring return action
- Polished head
- Length: 4"



Part No.	Description	1	10	50	100
179901CH	Wire cutter .....	\$5.49	\$4.94	\$4.45	\$4.00

## 4.3" Diagonal Wire Cutter

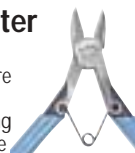
- Cuts component wire up to 1.2mm thick
- Stainless steel
- Durable rubber handles
- Jaws are designed for flush cutting
- 4.3"L x 2.1"W with 0.5" cutting blade



Part No.	Description	1	10	50	100
35481CH	Wire cutter .....	\$5.59	\$4.99	\$4.55	\$3.99

## 5" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick and 0.08mm fine wire
- Insulated handles
- Jaws are designed for flush cutting
- 5.0"L x 1.8"W w/ 0.5" cutting blade



Part No.	Mfr. Cross Ref. No.	1	10	25
161411CH	Wire cutter .....	\$7.49	\$6.74	\$6.07

## Heavy Duty Tubing Cutter

- Clever design eliminates spiraling, resulting in straight clean cuts with no burrs
- Cuts copper, brass, aluminum tubing and thin-wall conduit up to 1-1/8" diameter
- Extra cutter wheel stored in body
- Lightweight aluminum body and knob
- Telescopic wheel-feeding mechanism keeps turning radius constant
- Length: 4.8"



SALE

Part No.	Description	1	5
227475CH	Tubing cutter .....	\$17.95	\$17.05



## 5" Wire Cutter/Stripper

- Strips and cuts 20-24 AWG wires
- Insulated grips
- Spring loaded for easy use
- Cutter angled @ 45 degrees for use in tight places
- Size: 5.0"L x 3.0"W



Part No.	Product No.	1	10	50	100
159273CH	HT109	\$5.49	\$4.94	\$4.45	\$4.00

## 5" Wire Cutter/Strippers

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Size: 5.0"L x 3.0"W
- One-year warranty

78991CH: 10-30 AWG

(screw adjustable)

215888CH: 10-24 AWG

(dial to adjust for wire gauge)



Part No.	Mfr. Cross Ref. No.	1	10	50	100
78991CH	HT108	\$3.95	\$3.49	\$2.95	\$2.59
215888CH	JE-2022C	3.95	3.49	2.95	2.59

## 6" Wire Cutter/Strippers

- Contoured cushion-grip handles
- Wire size markings, in AWG and mm
- Size: 6.0"L x 2.0"W

161226CH: Premium T-5

- 10-18 AWG solid
- Color: yellow

161234CH: Premium T-6

- 16-26 AWG stranded
- Color: red

161218CH: Standard T-6

- 16-26 AWG stranded
- Color: red



Part No.	Prod. No.	Description	1	10
161226CH	ID45-215	T-5 10-18 AWG ...	\$16.75	\$15.91
161234CH	ID45-216	T-6 16-26 AWG .....	17.79	16.91
161218CH	ID45-121	T-6 16-26 AWG .....	13.59	12.95

## 6.6" Wire Stripper

- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6"L x 2.0"W



Part No.	Product No.	1	10	50
159290CH	HT5023	\$9.95	\$8.96	\$8.06

## 7-in-1 Wire-Handling Tool

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Solderless crimping tool
- Scale: mm and inch
- Size: 6.6"L x 3.0"W



Part No.	Prod. No.	Description	1	10	50
18796CH	HT104	10-18AWG .....	\$4.95	\$4.49	\$3.95
127861CH	HT1042	16-26AWG .....	5.49	4.94	4.45
127870CH	HT1043	22-30AWG .....	5.49	4.94	4.45

See page 231 for Molex Hand Crimp Tool and Extraction Tool.

## Automatic Wire Strippers

175097CH: Spring load grip

- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length

202841CH:

- Size: 6.5"L x 3.0"W
- Weight: 0.3 lbs.

237219CH:

- Size: 5.2"L x 2.7"W • Weight: 0.2 lbs.



Part No.	Description	1	10	25
175097CH	Strips 8-22 AWG .....	\$16.95	\$15.26	\$13.73
202841CH	Strips 3-24 AWG .....	12.45	10.58	7.94
237219CH	Strips 14-24 AWG .....	9.95	8.46	6.34

## Rotary Coax Cable Strippers

2 and 3 Blade

159118CH (3 Blade):

2 settings RG58/59/62

- For cable sizes 4-10mm

• Size: 4.2"L x 1.3"W

• Color: black

159185CH (2 Blade):

4 settings RG58/59/62/174

- For cable sizes 4-12mm

• Size: 3.9"L x 0.7"W • Color: gray

Includes: Hex key wrench for adjusting blade

Part No.	Product No.	1	10	25
159118CH	HT312B (3 blade) .....	\$13.95	\$11.86	\$8.89
159185CH	HT332D (2 blade) .....	13.95	12.56	11.30

## Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Push-down locking mechanism
- Size: 8.0"L x 2.0"W • Weight: 0.8 lbs.



Includes: Cut and strip blade

Part No.	Mfr. Cross Ref. No.	1	10
174684CH	TTK071	\$26.95	\$24.26

## Telemaster Modular Connector Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high quality connections
- Size: 6.0"L x 2.0"W
- Weight 0.8 lbs.

Includes: Cut and strip blade



Part No.	Product No.	1	10
161091CH	ID30-496	\$39.95	\$35.99

## Ratchet Crimp Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Size: 8.5"L x 2.2"W
- Weight: 1.2 lbs.

Includes: Cut and strip blade



Part No.	Mfr. Cross Ref. No.	1	10
174676CH	TTK070	\$39.95	\$35.99

## Professional Modular Connector Crimping Tool

- Spring return action
- 6mm and 12mm stripping guide
- Crimp modular plugs without changing dies
- Crimps 10P10C, RJ45: 8P8C, RJ11 and RJ12: 6P6C, and 4P4C
- Insulated handles • Size: 8.2"L • Weight: 1.2 lbs.



Part No.	Product No.	1	10	25
181147CH	HT200	\$54.95	\$49.49	\$44.55

## Modular Connector Crimping Tool Set

- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps RJ11 and RJ45 plugs
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.

Includes: 90 modular plugs, 40 pcs. 4P4C, 30 pcs. 6P6C, 20 pcs. 8P8C



Part No.	Product No.	1	10	25
73496CH	HT2000B	\$74.95	\$67.49	\$60.75

## Metal Modular Connector Crimping Tool

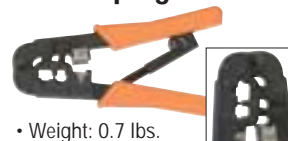
- Cable stripper and wire cutter
- Size: 8.0"L
- Weight: 1.8 lbs.
- Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)



Part No.	Description	1	10	25
114526CH	RJ11/RJ45	\$24.95	\$22.49	\$20.25

## Ratcheted Modular Connector Crimping Tool

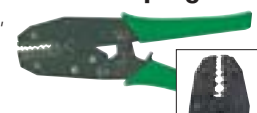
- Insulated grip
- Ratcheted type
- Metal • 7.5"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C) • Weight: 0.7 lbs.



Part No.	Description	1	10	25
159311CH	RJ45/11/12	\$21.95	\$19.95	\$17.95

## Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- Hex sizes: 0.043", 0.068", 0.100", 0.137", 0.213", 0.255"
- Size: 8.5"L x 2.5"W • Weight: 1.1 lbs.
- All steel construction



Part No.	Product No.	1	10	25
114534CH	HT-336G	\$23.95	\$21.59	\$19.45

## Lowest Price Guarantee

Found a product at a lower print advertised price? We'll beat that price by 10% right down to our cost!

## Hex Crimp Tools

- Use with RG-58 and RG-59 connectors with up to a 3/8" ferrule

**261745CH:** 1.7mm standard crimp for crimping center conductor on BNC & TNC connectors; up to 3/8" ferrule  
**261737CH:** Ferrules up to 1/2"



Part No.	Description	1	5
261745CH	Hex crimp tool (3/8")	\$19.75	\$18.55
261737CH	Hex crimp tool (1/2")	19.49	18.29

## Solderless Terminal Crimping Tool

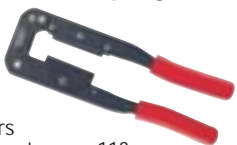
- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W



Part No.	Product No.	1	10	25
72995CH	HT303	\$18.95	\$16.11	\$12.08

## IDC Connector Crimping Tool

- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 113
- Size: 9.2"L x 3.0"W • Weight: 1.1 lbs.

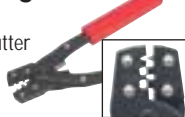


Part No.	Product No.	1	10	25
73251CH	HT214	\$15.95	\$14.39	\$12.95

## Non-Insulated Terminal D-Sub Crimping Tool

**14-26 AWG**

- Heavy-duty metal tool with cutter and insulated handles
- For computer pins and sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire
- Coiled spring return • Size: 7.3"L x 1.5"W



Part No.	Product No.	1	10	25	100
99442CH	HT202A	\$9.49	\$8.55	\$7.69	\$6.95

## D-Sub Crimping Tool

**20-28 AWG**

- Crimps D-sub pins and sockets
- For use w/ P/Ns 43377CH, 43369CH, pg 101 & 100765CH, pg 112
- Size: 7.0"L x 4.0"W



Part No.	Product No.	1	10	25
159265CH	HT213	\$10.95	\$9.89	\$8.89

## Nibbling Tool

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required • Size: 7.8"L



Part No.	Prod. No.	Description	1	10	25
18809CH	HT204	Nibbling tool	\$7.95	\$7.16	\$6.44
29330CH	HT204B	Replcmnt bit	4.49	4.04	3.64

## Compression Multi-Tool

Designed to compress ferrules of "F" /BNC/ RCA connectors. Black oxide steel frame with interchangeable die sockets, ratchet mechanism with manual release disengages after a complete cycle securing a fully compressed ferrule. Integrated coax cutter for cutting cables to appropriate lengths.



Part No.	Description	1	5
261761CH	Compression multi-tool	\$35.65	\$33.85

## "F" Connector Compression Tool

Compresses RG-6 and RG-59 Snap-N-Seal type connectors.  
 • Length: 5"



Part No.	Description	1	5
261753CH	Compression tool	\$29.95	\$28.45

## 8-Piece Fold-Up Torx Key Set

- 3.7" long handle
- Torx bits: T9, T10, T15, T20, T25, T27, T30, T40 • Size: 3.7"L x 1.2"W



Part No.	Description	1	10	100
176006CH	Torx key set	<del>\$10.49</del> \$6.35	\$5.76	\$5.23

## 25-Piece Hex Key Set

- 12-piece SAE long arm with sizes from 1/16" to 3/8"
- 13-piece Metric short arm with sizes from 1.5mm to 1cm



Part No.	Description	1	5
261825CH	Hex key set	\$6.95	\$6.59

## Rivet Tool

Sets 3/32", 1/8", 5/32" & 3/16" rivets without adjustments. Simply change the appropriate nozzle, slip the rivet into the pre-drilled hole, and you have a perfect fasten. Spring-loaded handle for automatic ejection of the mandrel.



Part No.	Description	1	5
226114CH	Rivet tool	\$5.59	\$5.29
226288CH	1/8" x 1/4" long rivet (100 pk)	2.19	1.65
226296CH	3/16" x 1/4" long rivet (100 pk)	3.49	2.65

## 1/4-Watt & 1/2-Watt Resistor Lead Forming Tool

- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors also
- Lead spacing: 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"
- Size: 5.4"L x 1.5"W



Part No.	Description	1	10	50
106884CH	1/4W & 1/2W	\$2.79	\$2.65	\$2.52

## 9-in-1 Pocket Multi-Tool

- Bottle opener
- Flashlight
- Nail pick
- 2 handyman/long-nose pliers
- Phillips screwdriver
- Folded size: 2.75"L
- Metal file
- Knife blade
- Wire cutter



Part No.	Description	1	5
227264CH	9-in-1 pocket multi-tool	\$4.39	\$3.99

## Multi-Tool Storage Rack

Organize and store 106 of the most common tools in 24" of wall space. Made of durable plastic material, it easily mounts on a wall with the included screws.



Part No.	Description	1	4	8
239353CH	Storage rack ...	<del>\$5.99</del> \$5.39	\$4.85	\$4.37

## Heavy Duty Staple Guns

The standard stapler is perfect for contractors, home do-it-yourselfers, and specialty trade applications. We also offer the cable tackers that are ideal for a wide variety of applications such as telephone wire, cable TV, hi-fi systems, alarm systems, intercommunications and general electrical contract work. Both are made of durable nickel-plated steel for heavy-duty use. Rubber grip assures comfortable operation.



- Handle locking
- Easy rear loading
- Adjustable high impact tension knob
- Hand stop for safe stapling control
- Visual reload window & rear loading

**227969CH: T-50 Staple Gun**

- Handles 5/16", 3/8", 1/2", & 9/16" staples
- Use T-50 type staples, below

**242878CH: Cable Tacker Gun**

- 4.8mm maximum cable diameter, 1/4" width
- Use P/Ns 244988CH & 245008CH tackers, below

**242886CH: 4-in-1 Staple/Tacker/Nail Gun**

- Handles T-50 staples; T-25 cable tackers; 14mm long pin nails; 12-14mm long brad nails

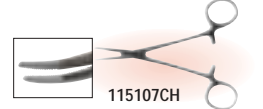
Part No.	Description	1	5
227969CH	T-50 staple gun .....	\$14.95	\$13.58
242878CH	Cable tacker gun .....	<del>\$18.89</del> 15.99	14.53
242886CH	4-in-1 staple/tacker gun .....	<del>\$18.39</del> 13.29	12.08

## Staples

Part No.	Description	1	5
230295CH	T-50, 5/16" staples, 1250 ea. ....	\$2.25	\$2.05
230316CH	T-50, 1/2" staples, 1250 ea. ....	2.69	2.46
230324CH	T-50, 9/16" staples, 1250 ea. ....	2.95	2.67
244988CH	3/8"L tackers, 1000 ea. ....	<del>\$1.39</del> 1.25	1.13
245008CH	9/16"L tackers, 1000 ea. ....	<del>\$1.59</del> 1.45	1.29
245016CH	T-25, 1/2"L tackers, 1000 ea. ....	<del>\$1.55</del> 1.35	1.20
245032CH	T-25, 9/16"L tackers, 1000 ea. ....	<del>\$1.79</del> 1.55	1.38

## 5" Steel Hemostats

- Grade 410 A.I.S.I. stainless steel
- Three locking positions



Part No.	Mfr. Cross Ref. No.	Description	1	10	50
115107CH	HEMO1	Straight	\$3.49	\$3.14	\$2.83
115115CH	HEMO2	Curved	3.95	3.56	3.20



## 3-Piece Open-End Ratcheting Wrench Set

The Alden Wrench needs only 30° of pivot angle, rather than 60° required by other open-end wrenches. With the built-in ratchet, you need not even remove the wrench from the head of the bolt or nut. Coupled with its small head sizes and ratcheting action, you can loosen or tighten a bolt faster and in tighter spaces. It is made of stainless steel and is individually hand polished.

- SAE 3/8-7/8, 1/2-9/16, 5/8-11/16

Part No.	Description	1	10	25
223896CH	SAE open-end wrench set	\$29.95	\$27.45	

Blue Part No. = Limited Quantity Available

## 4-Piece Adjustable Wrench Set

Heavy-duty carbon steel wrenches with black industrial finish. Constructed with rugged I-beam handle and four-sided jaw design for better fit and strength.

- Length x jaw opening: 12" x 1 3/16"; 10" x 1 3/16"; 8" x 1"; 6" x 1 1/16"

Part No.	Description	1	5
261711CH	Adjustable wrench set	\$9.65	\$9.15

## Adjustable Wrench

Made of chrome-plated carbon steel with knurled adjustment screw and angled head. Size: 6"L x 13/16".

Part No.	Description	1	5
261649CH	Adjustable wrench	\$4.15	\$3.69

## Combo Wrench Set

- Dropped forged steel
- Combination open closed wrench ends

Part No.	Description	1	5
261489CH:	10 sizes: 4mm, 4.5mm, 5mm, 5.5mm, 6mm, 7mm, 8mm, 9mm, 10mm, and 11mm		

319564CH: 11 sizes: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8"

Part No.	Description	1	5
261489CH	10-piece combo wrench set	\$8.49	\$7.99
319564CH	11-piece combo wrench set	7.99	7.59

## Combination Wrenches

Made from hardened, tempered, drop forged chrome vanadium steel. These wrenches have a straight open end and a 120° offset bi-hexagonal ring.

Part No.	Description	1	5
261702CH	9/16" wrench	\$6.39	\$6.09
261690CH	1/2" wrench	6.19	5.89
261681CH	7/16" wrench	5.69	5.39

## 2-Piece Tweezer Set

- PVC insulated handles
- Serrated tips for parts handling
- Bent tip and straight rounded tip (wide tip)
- Length: 5.8"

Part No.	Description	1	10	25
253180CH	Tweezer set	\$2.99	\$2.69	\$2.45

## 4-Piece Steel Tweezer Set

- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

Part No.	Description	1	10	50
10735CH	4-piece tweezer set	\$7.95	\$6.95	\$5.95

## 12-Piece File Tool Kit

- Fine and coarse file assortment for metal and wood
- 3-piece metal flat; 2-piece metal triangle; 1 each wood round; metal round; wood half-round; metal half-round; metal/wood half-round; and 2 detachable handles

Part No.	Description	1	5
233314CH	12-piece file kit	\$12.95	\$9.75

## Steel File Sets

- Strong tool steel
- 100360CH: 8-piece (5.65"L)
  - 1 ea. 0.15"Dia., 0.13"Dia., 0.12"Dia., 0.11"Dia. and four 0.22"Dia.
- 202833CH: 6-piece (5.5"L)
  - 1 ea. 0.12"Dia. (round), 0.11"W (triangle), 0.10"W (square), 0.20"W (half-round) and two 0.2"W (flat)

Part No.	Mfr Cross Ref. No.	Description	1	10
100360CH	FS108F	8-piece file set	\$9.95	\$8.95
202833CH	08110	6-piece file set	.75	.65

Blue Part No. = Limited Quantity Available

## Automatic Center-Punch Tool

Adjustable

- Precision instrument
- Alloy steel point
- Knurled steel body
- Size: 5.0"L x 0.5"Dia.

Part No.	Description	1	10	50
160282CH	Center punch tool	\$5.95	\$5.39	\$4.85

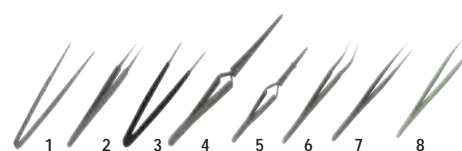
## T-Handle Reamer Tool

Excellent for aluminum chassis work

- For enlarging starter holes on panel mount components from 1/8" to 1/2" diameter
- T-handle for easy rotation of tool
- Handle: 3.3" long, tool: 5.3" long

Part No.	Description	1	10	25
151749CH	T-handle reamer tool	\$7.95	\$7.49	\$6.95

## Tweezers



- 253163CH: Straight, round tapered, wide-point tip
- 252929CH: Straight round tapered, fine-point tip, stainless steel
- 253121CH: Wide-tip, insulated
- 252945CH: Self-closing reverse-action tweezers; wide point tip; stainless steel
- 252937CH: Self-closing reverse-action tweezers; medium point tip; stainless steel
- 253091CH: Curved fine-point tip
- 252911CH: Straight fine-point tip
- 253112CH: Fine-point tip, insulated, anti-static

Part No.	Length	Photo	1	10	25
253163CH	4.5"	1	\$0.99	\$0.89	\$0.79
252929CH	4.75"	2	2.25	1.99	1.79
253121CH	4.6"	3	1.49	1.35	1.25
252945CH	6.6"	4	2.59	2.35	2.09
252937CH	4.3"	5	2.25	1.99	1.79
253091CH	4.6"	6	2.25	1.99	1.79
252911CH	4.75"	7	2.25	1.99	1.79
253112CH	4.75"	8	2.25	1.99	1.79

## Strip-Wrap-Unwrap Tool

- Tool tip made of tempered steel
- Spring steel cutter
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 88 for wire
- Wrap 1 to 2 turns of insulated portion of wire for secure connections
- 4.5" long

Part No.	Mfr. Cross Ref. No.	1	10	25
34585CH	HSM30 (Modified)	\$49.99	\$44.99	\$39.99
236785CH	HSR30 (Regular)	29.95	26.95	23.95

## 30 AWG Wire Wrap/Strip Tools

Recommended for use on 0.025" (0.63mm) square posts on 0.100" (2.54mm) center grids. The first 1-1/2 loop on the modified tool has wire insulation while all loops on a regular tool have bare wires.

- Knurled handle for easy grip
- 5" long

Part No.	Description	1	10	25
242801CH	Tool (Regular)	\$17.95	\$15.26	\$11.44
242798CH	Tool (Modified)	19.95	17.95	16.15
242827CH	Replace tip for 242801CH	8.49	7.65	6.80
242819CH	Replace tip for 242798CH	9.49	8.07	6.05
242835CH	Replace stripper assembly	5.49	4.67	3.50

## IC Pin Straightener

Straighten bent pins safely and easily with Jameco's IC pin straightener.

- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
- Materials: black plastic
- Size: 3.3"L x 1.5"W x 0.4"H

Includes: Ground terminal

Part No.	Description	1	10	100
99362CH	IC straightener	\$6.95	\$6.26	\$5.63



## Trimmer Potentiometer Adjustment Pocket Tool

- Glass-filled body
- Stainless steel blade
- Size: 5.2"L



Part No.	Description	1	10	100
153314CH	Trimmer tool	\$1.35	\$1.22	\$1.09

## Crimp Pin Extraction Tools

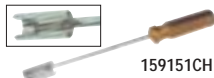
- Easily extract 0.093" locking pins from connectors
- Heavy duty metal
- Precision design • Length: 5"
- See crimp pins on pg 105 (42729CH and 42649CH)



Part No.	Prod. No.	Description	1	10	100
131887CH	HT319C	Male tool for 42729CH	\$10.95	\$9.86	
131879CH	HT319B	Fem. tool for 42649CH	10.95	9.86	

## BNC Connector Removal Tools

- For deep chassis removal
- Allows access to hard-to-reach places



Part No.	Product No.	Length	1	10	25
159151CH	HT2206	6"	\$8.49	\$7.22	\$5.41
152047CH	HT2212	12"	14.99	14.25	13.53

## D-Sub Pin Insertion/Extraction Tool

- Insertion/extraction tool: red/white plastic body; exchangeable tips



Part No.	Description	1	10	100
19094CH	Insert/extract tool	\$2.79	\$2.49	\$2.15

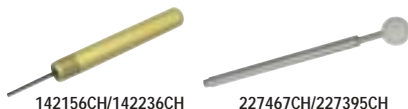
## Spring-Hook Tools

- Grab or place in position springs and wires in those hard-to-reach areas with these 8" long spring hook tools.



Part No.	Description	1	5
226042CH	Spring hooks	<del>\$5.49</del>	\$4.25 \$3.86

## Extraction Tools for Molex Connectors



Part No.	Product No.	AWG	1	10
142156CH	W-HT-2285	18-30	\$14.49	\$13.49
227467CH	W-HT-2023	18-30	11.99	10.99
142236CH	W-HT-2038	14-30	14.49	13.49
227395CH	W-HT-2054	14-30	11.99	10.99
236128CH	W-HT-1884	22-30	9.99	8.99
234940CH	11-03-0022	22-30	14.99	12.99

142156CH/227467CH: For .062" power connectors  
142236CH/227395CH: For .093" power connectors  
236128CH/234940CH: For .100" KK® series housing

## Steel Fish Tape

Designed specifically to make the retrieval of wires quick and easy.

- Impact resistant yellow ABS case won't rust or dent
- Finger grips around reel to ensure easy control
- Trigger provides constant-pressure tension while retracting



**SALE**

Part No.	Length	1	10	25
217470CH	50'	<del>\$24.95</del>	\$18.15	\$16.46 \$14.96

Blue Part No. = Limited Quantity Available

## 33' Measuring Tape

Retractable measuring tape's case has a rubber finish for easy grip and yellow contrast for easy visibility.

- 1" wide
- Metric and inches with 1mm and 1/16" scales
- Triple riveted magnetic end hook
- Bottom & side buttons for temporary tape lock
- Front thumb lock for permanent locking of tape measure • Belt clip and strap



Part No.	Description	1	5
261833CH	Measuring tape	\$9.35	\$8.49



## Hand Tools for Mini-Fit Jr.



304928CH: Accepts wire range from 14-24 AWG

Part No.	Product No.	Description	1	5
304928CH	63811-1000	Crimp tool	\$42.99	\$39.99
304936CH	11-03-0044	Extraction tool	19.99	18.99

## Fishing for Savings

If you've ever considered purchasing a steel fish tape, you've probably had second thoughts because of the seemingly high cost. But as you know, the right tool can save lots of time, and that means further savings.

Fish tapes are no exception to the rule. They save significant amounts of time. They can also prevent the installer from cutting holes in walls which are costly to repair.

If you install manufacturing equipment or develop large systems, consider having a fish tape in your tool arsenal. They'll save you time, and you'll find we have the lowest prices around!

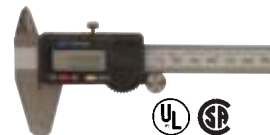


**Practical Practices**  
Money Saving Tips for the Engineer

## Digital Display Calipers

Metric or Inches

- Hardened stainless steel
- Display: inches to 0.001; mm to 0.01
- Instructions for making internal, external, depth & step measurements
- Calipers measure to 6 inches/150mm
- One-year warranty



**Includes:** Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783CH, pg 183)

Part No.	Description	1	10	25
127482CH	Digital disp. calipers	\$64.95	\$58.46	\$52.61

## Metal Dial Calipers

Metric or Inches

- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Length: 6" (150mm)
- Materials: metal • Color: silver



**Includes:** Fitted plastic storage case

Part No.	Description (min. reading)	1	10	25
116134CH	Metric (.02 mm)	\$29.95	\$26.96	\$24.26
116126CH	Inches (.001 inch)	29.95	26.96	24.26

## Magnetizer/Demagnetizer

Magnetize tips of screwdrivers for easy pick-up of small metal objects; demagnetize tips to prevent electrostatic discharge that will damage electronic components.

- Size: 2.0"L x 2.0"W x 1.2"D

**SALE**

Part No.	Description	1	5
239530CH	Magnetizer/demagnetizer	<del>\$6.99</del>	\$6.29 \$5.66

## Glue Gun and Sticks

- Adheres to PCBs, cardboard, wires, metal and cloth
- Silicon nozzle
- Electronic heating
- Trigger action
- Utilizes 100mm long gluesticks (2 sticks included) • Size: 7.3"L x 6.3"W



Part No.	Description	1	10	25
72696CH	Glue gun	\$9.95	\$8.96	\$8.06
78633CH	Glue sticks (6/pk)	3.15	2.84	2.55
176292CH	Glue sticks (10/pk)	4.95	4.29	3.79

## Deluxe Precision Knife Set

- Three different knife handles – fine work, medium and heavy duty power grip
- Size: 6.3"L x 2.8"W x 1.4"H

**Includes:** 13 types of blades



Part No.	Description	1	10	25
72768CH	13 blade knife set	\$10.95	\$9.86	\$8.87

## 6" Drywall Saw

- Hardened tempered steel blade
- Sharp tip for plunge cuts
- Hard plastic handle



Part No.	Description	1	5
224004CH	6" drywall saw	<del>\$1.95</del>	\$1.59 \$1.41

Blue Part No. = Limited Quantity Available

See pages 102 – 103 for Molex Connectors.

Color Code Legend
New Sale Lower\$ QtySave

## SurePunch™ Series Punchdown Tools

Terminates and cuts telephone wire and data cable into 66 and 110 termination panels.

- Cushion grip, molded to the shape of your hand, for comfort and a sure, non-slip hold
- For 22-28 AWG solid or stranded wire
- Blades twist and lock into place
- Length (with blade): 8.0" • One-year warranty

**230391CH:** 110/66 combo w/ reversible cut-only blade

**230383CH:** 110 reversible cut & punch/punch-only blade

**230375CH:** Both 110 & 66 reversible cut & punch/punch-only blades

Part No.	Product No.	1	5
230391CH	3571	<del>\$51.25</del> \$46.99	\$42.77
230383CH	3572	<del>\$51.25</del> 46.99	42.77
230375CH	3579	<del>\$58.85</del> 53.69	48.78

Blue Part No. = Limited Quantity Available

## SurePunch™ PRO Punchdown Tool

*With 110/66 Combo Blade & Clip-On Light*

The FIRST and ONLY punchdown tool to have a detachable light.

Built into the handle is a hook to feed wires through holes and a pick to separate wires.

- Adjustable HI/LO spring compression
- Detachable light with long-life 2200mcd LED
- Finger grips and non-slip rubber-embedded cushion handle for comfort • Length (tool only): 7.0"
- Blades twist and lock into place
- 10-year warranty on blade; one-year on tools

Part No.	Product No.	1	5
230359CH	3588	<del>\$65.49</del> \$59.49	\$54.09

Blue Part No. = Limited Quantity Available

## Non-Impact 110 Punchdown Tool

*Cut and Punch*

Terminates and cuts telephone and data wire into 110 terminating panels.

- Non-impact, low-cost • 22-28 AWG
- Solid or stranded, single insulation wire
- Comfortable rubber grip handle • Length: 4.0"

Part No.	Product No.	1	5
230367CH	3580	<del>\$10.29</del> \$9.45	\$8.55

Blue Part No. = Limited Quantity Available

## Impact Punch-Down Tool

Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spare storage blade in the handle.

- One-year warranty
- 124142CH:** For 66-type bifurcated terminals
- Size: 7.0"L x 1.4"W x 1.1"H
- 124151CH:** Blade for 110-type terminals

Part No.	Description	1	10
124142CH	# 3527 Tool with 66 blade ...	\$53.19	\$50.53
124151CH	110 blade	<del>\$19.95</del> 17.99	17.14

See pages 227 – 228 for our complete selection of Cutters/Strippers.

## "GripP-STRIPPER" Wire Cutter/Stripper

This tool strips & cuts the most common wire and cable types: electrical wire, hook-up wire, multi-conductor cable, and flat cables.

- For 10-22 AWG
- The tool head and handles are at optimum 22° angle
- Non-scoring strip and smooth wire cutting
- Features screw cutter and wire loops embedded in frames • Gripping jaws on front of tool
- Size: 7.1"L x 2.3"W x .65"D • One-year warranty

Part No.	Product No.	1	5
230463CH	1117	<del>\$13.95</del> \$12.65	\$11.50

Blue Part No. = Limited Quantity Available

## Data SureStrip™ Universal Cable Cutter/Stripper

This multi-purpose tool is an easy-to-use universal cable cutter and stripper for data, telephone, and network installations.

- Cuts and strips multiple cable types: 4/6/8-conductor flat satin cables; 4/6/8-conductor UTP/STP data cables, 25-pair UTP/STP data and telephone cables; multi-conductor round bundled cables of up to 0.5" diameter; 8-14 AWG wire
- Fully adjustable with simple thumb screw
- Length: 4.5" • One-year warranty

Part No.	Product No.	1	5
230447CH	1116	<del>\$18.89</del> \$17.15	\$15.57

## Cable Slitter/Stripper

*AM25 Slitter with 2109 blade*

Strips and slits round cables with PVC, Teflon, and THHN insulation from 0.18"–1.0" diameter.

- Adjustable cutting depth to 0.18" • Length: 5.3"
- Swivel blade for circular, longitudinal & spiral cuts
- Cable holding clip with integrated edge for removing slit insulation • Spare blade in handle
- Lifetime tool warranty; one-year on blade

Part No.	Prod. No.	Description	1	5
230404CH	1820	Cable slitter/stripper	\$37.95	\$36.05
236769CH	2109	Blade for 1820	14.59	12.29

## Impact Punch-Down Tools

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade

**175071CH:** Tool with blade

- For 66-type terminals
- Size: 5.2"L x 1.5"W x 1.0"H

**324013CH:** Tool with blade

- For 110-type terminals
- Size: 5.8"L x 1.7"W x 1.2"H

**175089CH:** Punch-down blade

- Blade for 110-type terminals

Part No.	Description	1	10
175071CH	Tool with 66 blade	\$34.95	\$31.46
324013CH	Tool with 110 blade	37.39	33.65
324021CH	Punch-down blade 66	14.95	13.49
175089CH	Punch-down blade 110	14.95	<del>11.50</del>

Quantity SAVE

## RG59/6/RG6 Quad CATV "F" Coaxial Cable Stripper

Easily removes the outer jacket, shield braid, and inner dielectric in one single step.

- Self-regulating tension
- Adjust cutting depth on each blade for varying cable thickness with the included hex key
- Pre-set for common strip lengths
- For RG59/6/RG6 Quad CATV "F"
- Length: 4.3" • One-year warranty

Part No.	Product No.	1	5
230439CH	1257	<del>\$16.09</del> \$14.59	\$13.26

Blue Part No. = Limited Quantity Available

## CrimpALL® Crimpers for RG58/59/62AU & RJ45

- Fully-ratcheting crimp cycle with built-in safety release
- Soft-rubber embedded handles
- Rugged, double-plated jaw, designed to increase life span
- Higher crimp force produced with less hand force
- No break-over hand force – less effort by the user to make the last click before making a complete crimp, the CrimpALL does all the work
- EZI-Change™ die screws makes changing dies quick and easy • Length: 9.9" • Weight: 1.3 lbs.

**230341CH:** For RG58/59/62AU with 2034 die

**230332CH:** For RJ45 (8P8C) with 2061 die

Part No.	Product No.	1	5
230341CH	8001	<del>\$58.95</del> \$54.45	\$49.47
230332CH	8030	<del>\$58.95</del> 54.75	49.76

## Crimpers for Twisted Pair Cable and BNC/TNC

- Fully-ratcheting cycle with built-in safety release
- EZI-Change™ die screws
- For RJ45 (8P8C) crimps 22-28 AWG flat/round, solid/stranded wires
- For 2 or 3 piece BNC/TNC connectors crimps RG58/RG59/RG62AU cables
- Length: 8.9"

**230421CH:** Twisted pair crimper with 2061 die

- Crimps 22-28 AWG flat/round, solid/stranded wires

• For RJ45 (8P8C)

**230412CH:** BNC/TNC crimper with 2034 die

- Crimps RG58/59/62AU cables

- For 2 or 3 pcs. BNC/TNC

Part No.	Product No.	1	5
230421CH	1307	<del>\$49.29</del> \$44.65	\$40.59
230412CH	1317	<del>\$49.29</del> 44.65	40.59

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange. Details on page 258.



## Protective Coiled Grounding Wrist Strap

- Comfortable, adjustable Velcro wrist strap
  - The coiled cord has banana plug and alligator clips
  - Extended cord: 9' long • Color: black
- Includes:** 1MΩ resistor for added safety



Part No.	Description	1	10	100
34551CH	Anti-static strap .....	\$6.49	\$5.85	\$5.29

## Conductive Anti-Static Foam and Bags

### Don't get zapped!

Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.

- For safe storage of static sensitive devices

**13864CH:** 24.0"L x 12.0"W x 0.25"H

\* Prepackaged: order in increments of 5



13864CH



78668CH

Part No.	Description	1	5
13864CH	Anti-static foam .....	\$9.29	\$8.35
78668CH	4" x 6" anti-static bags .....	*	.19
78650CH	8" x 10" anti-static bags .....	.69	.59

## 3M Disposable Anti-static Wrist Strap

Disposable wrist strap for one time use and low durability applications. A hypoallergenic adhesive provides 360° contact with the skin to minimize skin-to-band resistance. The conductive adhesive on the copper foil adheres to any convenient electrical ground. A current limiting resistor is fabricated into the plastic ribbon below the wristband. One size fits all.

- Ship along with components and devices such as integrated circuits and computer peripheral cards

Part No.	Product No.	1	10	25
285456CH	3M 2209 .....	\$1.25	\$1.17	\$1.11

## Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive semi-conductive vinyl that provide adequate discharging, yet will not short leads or pins.



236540CH

Part No.	Dimensions	Wt. (lbs.)	1	10	100
10575CH	11.3" x 22"	0.7	\$9.95	\$8.96	\$8.06
10583CH	19.5" x 23.5"	1.1	\$13.95	\$12.59	\$11.35
236540CH	23.5" x 27.5"	1.4	\$24.95	\$22.49	\$20.19

## Soldering Products

### 300-Watt Solder Pot

Temperature Regulated  
Between 420°C and 450°C

- HI/LO temperature switch
- 2 conductor power cord: 5' 9" long
- Holds up to 1 bar of P/N 176057CH or 170464CH, below
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base) • Weight: 5.9 lbs.
- Size: (tub) 2.4"Dia. x 1.6"D • One-year warranty



Part No.	Description	1	10	25
160303CH	300W solder pot ...	\$64.95	\$58.49	\$52.65

### 600-Watt Solder Pot

Temperature Adjustable

- 2-wire power cord (5'5")
- Temperature: 0°C to 500°C
- Self regulating temperature
- Input voltage: 110VAC @ 5.5A
- On-off power switch and LED indicator for heat
- Holds up to 3 bars of P/N 176057CH or 170464CH, below
- Size: (unit): 6.8"L x 5.5"W x 2.8"H
- Size: (tub): 3.9"L x 1.6"D • Weight: 7.4 lbs.



Quantity SAVE

**Includes:** Skimmer and removable dross tray

Part No.	Description	1	10
172275CH	600W solder pot .....	\$189.95	\$146.25

### 2000-Watt Solder Pot

- Thermostat control for setting temperature from 50°C to 300°C
- Holds up to 48 bars of P/N 176057CH or 170464CH, right
- Input voltage: 110VAC @ 18A, 50-60Hz single phase
- 3 conductor pigtail power cord: 5' long
- Size: (unit): 18.1"L x 11.5"W x 6.0"H
- Size: (tub): 12.0"L x 8.0"W x 2.9"H
- Weight: 23.1 lbs. • One-year warranty



Part No.	Description	1	5
149876CH	2000 watt solder pot .....	\$399.95	\$359.95

Color Code Legend
New Sale Lower\$ QtySave

## Fume Extractor and Filters

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan

- Operate continuously providing filtered air • Static ground jack
- Air flow: 115 CFM • Fuse protected
- 120VAC, 60Hz, 22 watt
- Noise: 49dB fan • Aerodynamic hood design for effective removal of solder fumes • Black anodized aluminum case
- Removable carbon-impregnated filter
- Compact size allows use on work bench w/ minimum space • Size: 6.4"W x 4.6"D x 7.9"H
- Weight: 4.6 lbs. • One-year warranty



**Includes:** Detachable power cord

Part No.	Description	1	10	25
120150CH	Fume extractor .....	\$58.95	\$52.95	\$47.79
127183CH	Replace. filters (2/pk)	12.95	11.66	10.49

## Combination 42-Watt Soldering Station and Fume Extractor

- Power consumption: 42W @ 650°F (soldering iron)
- Adjustable knob for temp. control: 500° to 800°F • Stability @ idle: ±9°F
- Max. air volume: 95/115CFM
- LED indicator for pilot light
- Electronic zero-voltage switching
- Input voltage: 100-120VAC @ 60Hz
- Size: 6.4"W x 7.8"H x 4.7"D • Weight: 5.2 lbs.



**Includes:** Soldering iron, iron holder, sponge, carbon activated filter, power cord and manual

Part No.	Product No.	1	10
183169CH	456DLX .....	\$89.95	\$86.29

## Solder Bars

- Used for soldering pots
- Tin/lead: 60/40 & 63/37
- Size: 13"L x 0.9"Dia.



Part No.	Description	Wt. (lbs.)	1	10	25
176057CH	60/40	1.1	\$8.49	\$7.65	\$6.89
170464CH	63/37	1.8	\$10.49	\$9.96	\$9.47

## Anti-Static Heel Strap

- Discharges static without restricting your mobility
- Ideal for anyone handling static sensitive devices
- Ground strap: 15.5"L



Part No.	Description	1	10	100
100327CH	Heel strap .....	\$5.49	\$4.99	\$4.55

## Anti-Static Plastic DIP IC Storage Tubes and Rubber Rail Stops

**29516CH:** Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. • Length: 23.75"

**29524CH:** Wide tube (rail) fits 24, 28, 32, 40 and 48-pin integrated circuits. • Length: 20"

**29583CH:** Rubber stops used to plug plastic rail ends



\* Prepackaged: order in increments of 10 or 100

Part No.	Mfr. Cross Ref.	Description	1	10	100
29516CH	RIC20	Thin rail .....	\$0.49	\$0.44	\$0.40
29524CH	RIC220	Wide rail .....	.49	.31	.19
29583CH	RRS	Rubber stop ....	*	.07	.053

## Electric & Manual Desolder Pumps

- Easily disassembled for cleaning
- Replacement tips available



**19254CH:**

- UL listed
- One-hand operation
- Size: 10.5"L x 1.0"Dia.

**19166CH:** Size: 7.8"L x 0.8"Dia.

**305218CH/305226CH:** Size: 13"L x 1.0"Dia.

Part No.	Description	1	10
19254CH	Electric desolder pump .....	\$26.95	\$23.95
19166CH	Manual desolder pump .....	4.95	4.49
305218CH	Manual desolder pump .....	18.95	17.99
305226CH	Man. desolder pump (ESD safe)	14.75	13.99
19262CH	1 tip for 19254CH .....	4.95	4.49
22091CH	2 tips for 19166CH .....	4.49	3.95
307774CH	1 tip for 305218CH .....	4.55	4.35
307782CH	1 tip for 305226CH .....	2.39	2.27

## Solder Spool & Iron Stand

- 4 pc. spool stand (some assembly required)
- Shaft diameter: 0.6"
- Size: 6"L x 3.5"W x 3.1"H
- Sponge size: 1.6"W x 2.4"L
- Weight: 2.0 lbs.



Part No.	Description	1	10	100
169551CH	Spool & iron stand	\$16.95	\$15.29	\$13.75

## Solder Spool Stand

- 12 pc. solder spool stand (some assembly required)
- Size: 3.6"W x 3.9"D x 4.3"H
- Shaft dia.: 0.6"
- Weight: 1.6 lbs.



Part No.	Description	1	10	100
141760CH	Solder spool stand ...	\$8.95	\$7.95	\$6.95





## 60-Watt Analog Display Soldering Station

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Size: 4.3"W x 6.0"D x 3.4"H • Weight: 4.1 lbs.

Includes: One 1/16" tip (P/N 35115CH, pg 235)

236460CH: Replacement sponge  
168583CH: Tip .078" for 168401CH  
168591CH: Tip .590" for 168401CH

Part No.	Product No.	1	10	25
236110CH	168-3C	\$89.95	\$79.95	\$72.95
236460CH	78-744615	2.99	2.69	2.49
168583CH	46-060102	11.95	10.79	9.69
168591CH	46-060115	12.95	11.69	10.49

## 42-Watt Controlled-Output Soldering Station



Weller®

- Transformer powered soldering station complete with macro style, low voltage, temperature controlled soldering iron
- Closed loop method of controlling maximum tip temperature for protection of temperature sensitive components • 120VAC @ 60Hz input
- Power unit housing features impact resistant plastic for durability
- Quick disconnect plug for soldering iron and lighted on/off switch
- Separate conductor grounds iron tip and terminates third pin of power cord • Uses PT series tips
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Includes: Soldering iron and PTA7 tip (below)

Part No.	Prod. No.	Description	1	10
170552CH	WTCPT	Solder station ....	\$129.95	\$124.95
192161CH	TC201T	Replac. iron .....	68.95	62.05
192170CH	PTA6	.062" screwdriver tip (600°F) .....	6.95	6.25
192188CH	PTA7	.062" screwdriver tip (700°F) .....	5.69	5.15
192196CH	PTA8	.062" screwdriver tip (800°F) .....	5.69	5.15

## Vacuum Pen Tools



- ESD safe body
- Picks up components with weight of 1.1 lbs. or less
- 207239CH: 4 tips and cups
- 207247CH: Aluminum body; 6 tips and cups

Part No.	Description	1	10	25
207239CH	Handivac tool .....	\$19.99	\$17.99	\$16.19
207247CH	Pen vac tool .....	37.95	34.25	30.49

## Weller® 40-Watt Soldering Station

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 120V @ 60Hz
- Temperature is electronically controlled from 350°F to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

Includes: ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Prod. No.	Description	1	10
146595CH	WLC100	Soldering station	\$48.95	\$44.09

## Weller® Soldering Tips Replacement Tips for WLC100, WP25 & WP23

Part No.	Prod. No.	Description	1	10
146608CH	ST1	Screwdriver tip 1/16" .....	\$5.95	\$5.35
146616CH	ST3	Screwdriver tip 1/8" .....	5.95	5.35
192145CH	ST6	Screwdriver tip .031" ...	5.25	4.75
146624CH	ST7	Conical tip 1/32" .....	5.95	4.95

## 50-Watt Analog & Digital Display Soldering Stations

Innovative heater and sensor combination for quick heat-up and rapid temperature recovery

- Tip temperature offset capability allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- Auto power-down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F
- Temp. accuracy: ±9.0°F
- ESD safe
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Includes: PES51 50W soldering iron with ETA tip, PH50 stand and sponge, and adjustment tool

Part No.	Product No.	Description	1	10
217461CH	WES51	Analog .....	\$115.95	\$105.95
233533CH	WESD51	Digital .....	158.95	150.99

## Weller® Soldering Tips

Replacement Tips for WES51

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered

Part No.	Prod. No.	Description	1	10
16774CH	ETA	Screwdriver 1/16" .....	\$6.95	\$6.25
16782CH	ETJ	Long screwdriver 1/32" .....	6.95	6.25
16803CH	ETR	Narrow screwdriver 1/16" .....	6.95	6.25
16811CH	ETS	Long conical 1/64" .....	6.95	6.25

## 65-Watt Soldering Station with Micro Soldering Pencil



Weller®

The micro soldering pencil has the shortest tip-to-grip distance on the market today, giving you excellent control by putting you closer to the work. The heating element is contained in the pencil rather than the tip so you do not throw away a good heater every time you wear out a tip.

- Fast heat-up and thermal recovery
- Tips are secured to the pencil by use of a threaded end, eliminating the use of a barrel nut
- Temperature is reduced to 300°F (150°C) when pencil is not used for 20 minutes. Unit is switched off after 60 minutes of inactivity
- ESD safe to protect sensitive components
- Voltage: 120V input; 24V output
- Temperature range: 150°F-850°F (66°C-454°C)
- Temperature accuracy: ±9°F (±5°C)
- Temperature stability: ±10°F (±6°C)

Includes: WSLPU power unit, WMP soldering pencil with NT1 tip, and WMPH iron stand

Part No.	Product No.	1	5
227408CH	WSL	\$255.95	\$237.95

## Weller® Soldering Tips Replacement Tips for WSL

Part No.	Prod. No.	Description	1	5
233576CH	NT1X	0.8mm bent round ..	\$8.89	\$8.45
233550CH	NTA	0.6mm chisel .....	7.59	7.25
233568CH	NTB	2.4mm chisel .....	7.59	7.25
233541CH	NT1	0.25mm micro .....	9.99	8.29

## SMD Rework Station

Engineered to meet the demanding needs of today's electronic industry, technician service/repair centers, and assembly work. With this system, replacement of surface mount devices or dual-in-line components is a snap. It not only increases productivity in SMD assembly repair, but achieves a new standard of quality, superior performance, and ease of operation.

- High-performance, inexpensive, versatile
- Adjustable temp.: 250°C - 450°C (482°F - 842°F)
- Thermocouple sensor for stable temperature
- Long-life ceramic heating element
- Rapid heat-up and recovery
- 40W station, 25W ceramic element
- Size: 7.4"L x 5.0"W x 3.3"H • Weight: 2.6 lbs.

Includes: Base power unit, sponge, stand, surface mount tweezer iron, and stand for tweezers

Part No.	Description	1	10	25
224629CH	Rework station	\$89.95	\$80.99	\$72.85
168583CH	.078" tip .....	11.95	10.79	9.69
168591CH	.590" tip .....	12.95	11.69	10.49

# Soldering and Soldering/Desoldering Stations



## 45-Watt Analog Display Soldering Station

### Grounded Soldering Tip

- 500°F to 850°F • Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation
- Size: 7.0"L x 4.5"W x 3.5"H • Weight: 2.5 lbs.

Includes: Manual, soldering iron, stand and two sponges

Part No.	Product No.	Description	1	10	25
229673CH	XYT379-C	45-Watt soldering station .....	\$59.95	\$53.95	\$48.95
156814CH	XYB01	Sharp conical chisel 1/32" tip .....	4.95	4.49	3.95
156822CH	XYB04	Conical chisel 1/16" tip .....	4.95	4.49	3.95
134631CH	SP715	Replacement sponge .....	2.99	2.69	2.49



## 60-Watt Soldering Stations

Designed for soldering situations where precise temperature is required for sensitive components.

- Temperature is maintained at ±6°F
- Electronic temperature control from 392° to 878°F
- External calibration port
- CMOS devices protected against voltage spikes
- Power-on and heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H • Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115CH – below)

Part No.	Product No.	Description	1	10	25
236101CH	XY9-60D/ESD	Digital soldering station – ESD safe .....	\$109.95	\$99.95	\$89.95
219627CH	XY9-60A	Analog soldering station .....	99.95	89.95	79.95
168401CH	TWZ50ESD	SMD tweezer iron w/ 0.078" tip .....	<del>\$79.95</del> 74.95	67.46	60.71
168583CH	46-060102	Tip .078" for P/N 168401CH .....	11.95	10.79	9.69
168591CH	46-060115	Tip .590" for P/N 168401CH .....	12.95	11.69	10.49
236460CH	78-744615	Replacement sponge for both stations .....	2.99	2.69	2.49

## 60-Watt Desoldering & Solder/Desoldering Stations



125508CH



125516CH

- Simple fine tune feature to select within 300–850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes

### 125508CH:

- Size: 9.2"L x 7.2"W x 3.6"H
- Weight: 13.1 lbs.

Includes: XYD12 tip and solder holder

125516CH/223853CH: Size: 11"L x 10"W x 4.0"H; Wt.: 18.1 lbs.

Includes: XYD12 tip, solder holder, tip cleaner and tweezers

223853CH: Dual display of tip temperature with selector switch for °C or °F and read/set temperature

**Special 5% Bundle Savings**  
Complete ISO 9000 digital station – P/N 236101CH & 125508CH  
Sold separately \$409.90  
Combined: P/N 207263CH  
**\$388.95**

Part No.	Product No.	Description	1	10	25
125508CH	968	Desoldering station .....	\$299.95	\$269.99	\$242.99
125516CH	988	Solder/desoldering station .....	399.95	359.99	323.99
223853CH	988D	Solder/desoldering (dual display) ....	459.95	413.95	372.55
207271CH	TWZ60ESD	SMD tweezer iron with .078" tip .....	69.95	62.95	56.95
207221CH	D1A60A	Replacement desoldering iron .....	74.95	63.71	58.20
168583CH	46-060102	Tip .078" for P/N 207271CH .....	11.95	10.79	9.69
168591CH	46-060115	Tip .590" for P/N 207271CH .....	12.95	11.69	10.49
236460CH	78-744615	Replacement sponge for all stations .....	2.99	2.69	2.49

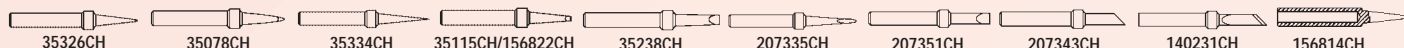
### Replacement Sponges for Legacy Models

Part No.	Product No.	For Station	1	10	100
134640CH	SP815	168-3C .....	\$2.99	\$2.55	<b>\$1.95</b>
134631CH	SP715	XY-60D, XY-379 & P/N 229673CH .....	2.99	2.69	2.49

See page 238 & 241 for Chemicals & other accessories to assist you in your soldering projects.

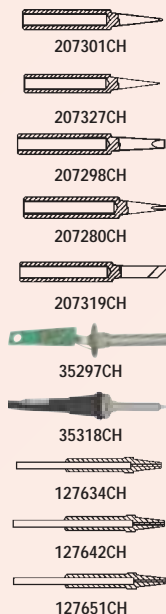
## Tips & Replacement Parts for XYTronic Soldering and Desoldering Products

**SALE**



**Quantity SAVE**

Part Number	Product Number	Description	For XYTronic Model Numbers (*Legacy Models)												Pricing		
			136ESD	168*	200CX 200PH6	AESD 379	XY900A / DESD	960D*	968	988	999SD*	JS259*	168-3C	2660*	1	10	25
35326CH	XY401	Soldering tip - conical bevel 1/32"			✓	✓		✓	✓		✓	✓	✓		\$4.49	\$3.95	\$3.65
35078CH	XY402	Soldering tip - semi-chisel 1/32"			✓	✓		✓	✓		✓	✓	✓		4.49	3.95	3.65
35334CH	XY403	Soldering tip - conical sharp 1/64"			✓	✓		✓	✓		✓	✓	✓		4.49	3.95	3.65
35115CH	XY404	Soldering tip - conical chisel 1/16"			✓	✓		✓	✓		✓	✓	✓		4.49	3.95	3.65
35238CH	XY405	Soldering tip - semi-chisel wide 1/8"			✓	✓		✓	✓		✓	✓	✓		4.49	3.95	3.65
207335CH	XY406	Soldering tip - long conical chisel 3/64"			✓	✓		✓	✓		✓	✓	✓		2.95	2.69	2.39
207351CH	XY410	Soldering tip - chisel 3/16"			✓	✓		✓	✓		✓	✓	✓		2.95	2.69	2.39
207343CH	XY411	Soldering tip - wedge 3/16"			✓	✓		✓	✓		✓	✓	✓		2.95	2.69	2.39
140231CH	XY430	Soldering tip - SMD flat pack 7/32"			✓	✓		✓	✓		✓	✓	✓		8.95	7.95	7.25
156814CH	XYB01	Soldering tip - sharp conical chisel 1/32"	✓				✓				✓				4.95	4.49	3.95
207301CH	XYB02	Soldering tip - conical semi-sharp 1/32"	✓				✓				✓				4.95	4.49	3.95
207327CH	XYB03	Soldering tip - conical sharp 1/64"	✓				✓				✓				4.95	4.49	3.95
156822CH	XYB04	Soldering tip - conical chisel 1/16"	✓				✓				✓				4.95	4.49	3.95
207298CH	XYB05	Soldering tip - semi-wide chisel 1/8"	✓				✓				✓				4.95	4.21	<b>3.16</b>
207280CH	XYB06	Soldering tip - long conical chisel 3/64"	✓				✓				✓				4.95	4.49	3.95
207319CH	XYB30	Soldering tip - wedge blade 3/16"	✓				✓				✓				8.95	7.65	5.75
35297CH	XY37	Heating element - (nichrome)			✓	✓		✓			✓		✓		20.95	18.95	16.95
35318CH	XY48	Assembly - 60W w/ nichrome heater			✓	✓					✓		✓		30.95	27.95	24.95
127634CH	XYD10	Desoldering tip - 1.0mm (.0394")						✓	✓						8.95	7.95	7.25
127642CH	XYD12	Desoldering tip - 1.2mm (.0472")						✓	✓		✓				8.95	7.61	<b>5.71</b>
127651CH	XYD15	Desoldering tip - 1.5mm (.0586")						✓	✓		✓				8.95	7.95	7.25



Test/Tools

Color Code Legend			
New	Sale	Lower\$	QtySave

Order 24/7 Toll Free 1-800-831-4242



## 16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572CH:  
• Length: 7.5"

36329CH:  
• Black anodized steel base – 5.3"L x 3.3"W  
• See below for replacement sponge (P/N 134631CH)  
• Fits most soldering irons .85" diameter

Includes: Sponge

Part No.	Description	1	10	100
116572CH	Soldering iron .....	\$16.95	\$15.29	\$13.75
36329CH	Soldering stand .....	4.95	4.46	4.01
134631CH	Sponge (for P/N 36329CH) .....	2.99	2.69	2.49



## Thermally Balanced 25-Watt Soldering Iron

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.

- 120VAC; 6' cord
- 25-watt power consumption
- Interchangeable tips (pg 235)
- UL listed • Length: 8.0"
- One-year warranty

Includes: 1.6mm conical tip

Part No.	Description	1	10	25
129040CH	25W solder. iron ....	\$11.49	\$10.35	\$9.35

## Weller® High-Quality 25-Watt & 35-Watt Soldering Irons

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9"
- 120VAC @ 60Hz

Includes: Power cord & ST3 tip (pg 234).

Part No.	Product No.	Description	1	10
170587CH	WP25	25W solder iron	\$32.95	\$31.35
192102CH	WP35	35W solder iron	39.95	35.95
192153CH	PH25	Solder iron stand	16.19	15.35

## Weller® 100-Watt Soldering Iron

- "Closed loop" method of controlling maximum tip temperature
- Nominal heat-up time with 700°F tip is 110 seconds
- 120VAC @ 60Hz input
- Length: 6" • Weight: 0.7 lbs.

Includes: CT6F7 (0.375" screwdriver tip; 700°F)

Part No.	Prod. No.	Description	1	5
192081CH	W100PG	Solder iron .....	\$62.95	\$59.79
192090CH	CT6F7	.375" scrwdrv tip .....	8.59	7.75

Check our website for more products  
[www.Jameco.com](http://www.Jameco.com)



## Special! Low-Cost Irons 30-Watt Soldering Iron and Stand

- UL approved
- Ideal for precision work
- 1/4" removable tip
- Length: 8.3"
- 110-120VAC

Part No.	Description	1	10	100
102461CH	30W soldering iron .....	\$4.99	\$4.49	\$4.04
116020CH	Replacement tips (2) .....	2.25	1.79	1.25
36329CH	Soldering stand .....	4.95	4.46	4.01

## 35-Watt Soldering Iron

- UL approved
- Ideal for maintenance and hobby use
- 0.157" removable tip
- Length: 8.1"
- 110-120VAC

Part No.	Description	1	10	100
208987CH	35W soldering iron .....	\$2.99	\$2.69	\$2.45
208995CH	Replacement tips (2) .....	.99	.89	.67
209074CH	Solder roll, 8mm (.031") ...	5.49	4.89	3.95

## Economical, High-Performance Soldering Irons

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.

- 25W, 40W, & 60W • Length: 9"
- 120VAC; 6' cord with 3-prong plug
- Tips for 224611CH/224602CH:  
226000CH chisel; 226018CH conical  
Tips for 195223CH:  
226026CH chisel; 226034CH conical

Part No.	Product No.	1	10	25
224611CH	200PHG-25W .....	\$7.95	\$6.76	\$5.07
224602CH	200PHG-40W .....	8.95	8.06	7.25
195223CH	200PHG-60W .....	13.95	12.49	12.11
226000CH	44-240517 tip .....	.95	.85	.79
226018CH	44-240513 tip .....	.95	.81	.61
226026CH	44-240617 tip .....	1.95	1.66	1.24
226034CH	44-240603 tip .....	1.95	1.66	1.24



## SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
  - Max. temp.: 760°F
  - Heater insulation exceeds 100MΩ • 120VAC
  - Heater power consumption: 35W each
- Includes: 0.095" tip

Part No.	Description	1	10	25
168410CH	Tweezer iron .....	\$59.95	\$53.95	\$48.95
168583CH	Tip .078" .....	11.95	10.79	9.69
168591CH	Tip .590" .....	12.95	11.69	10.49

## Committed to You

We're committed to providing you with the best service in the industry.

## Butane-Powered Cordless Soldering Iron and Tips



This butane-powered soldering iron is designed for many popular cordless applications. Most common are automotive repair, aviation, electrical components, field repair, shrink tubing, television repair and more.

- Cordless, simple operation in the shop or field
- No electrical interference
- Automatic ignition
- Up to 200 minutes of operation in a full load
- Soldering temperature range: 240°F to 1000°F
- Torch temperature: 2400°F

Part No.	Prod. No.	Description	1	5
255265CH	PRO-120	Soldering iron .....	\$44.95	\$42.69
262107CH	S-30	Tip, deflector .....	1.19	1.09
255273CH	PS-1	Tip, 1/32" flat .....	8.99	8.75
255290CH	PS-2	Tip, 3/32" flat .....	8.99	8.75
255302CH	PS-3	Tip, 1/8" flat .....	8.99	8.75
255311CH	PS-4	Tip, 3/16" flat .....	8.99	8.75
255329CH	PS-5	Tip, 1/32" chisel .....	8.99	8.75
255337CH	PS-6	Tip, 3/32" chisel .....	8.99	8.75
255361CH	PS-9	Tip, hot knife .....	8.99	8.75
255370CH	PS-10	Tip, hot blower .....	8.99	8.75

## Weller® Cordless Soldering Iron Kit

- Self igniting and instant heat
- Adjustable temperature (25W to 125W)
- Auto switch off
- Visible gas level

- Additional tips can be special ordered
- 2 hours of heat on average tank setting

Includes: Soldering tool, hot blower tip, hot knife tip, 2.4mm and 4.8mm double flat tip, cleaning sponge, storage case and instruction manual

Part No.	Prod. No.	Description	1	5
152207CH	PSI-100K	Tool kit .....	\$79.95	\$75.95

## WAHL® Cordless Soldering Iron

The #1 choice for field service soldering!

IsoTip® Power Pro Model #7904

- 900°F tip temperature
- LED indicator light
- Solders 200+ joints or up to 30 minutes of continuous soldering
- Iron performance equivalent to 25-watt iron
- Weight: 1.1 lbs.

Includes: Soldering iron, recharging stand, NiCd battery pack, and tips

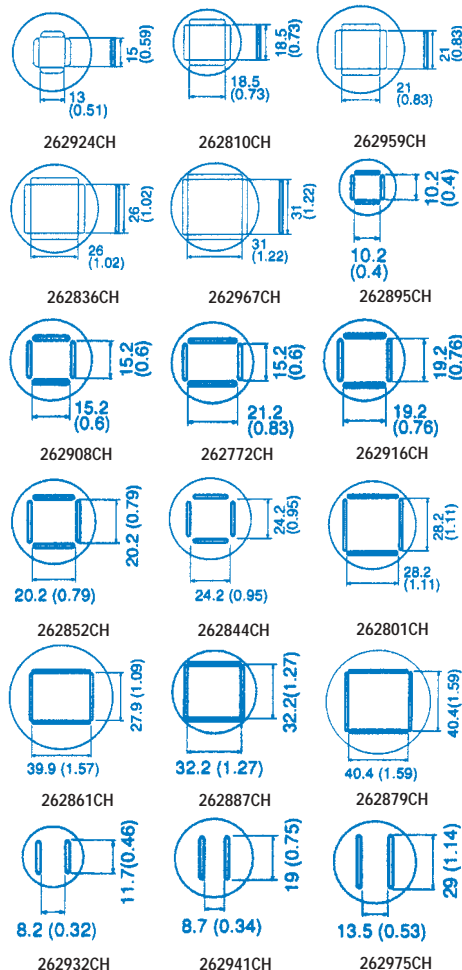
Part No.	Description	1	10
132783CH	Power Pro cordless iron .....	\$61.95	\$58.85





## Focus Hood Tips

Dimensions: mm (in.)



## Hot Air SMD Rework Station with Digital Display

The Hot-Air SMD 850D is engineered to meet the demanding needs of today's electronic industry; technicians, service/repair and assembly rework. The system not only increases productivity for SMD assembly and repair but also achieves a new standard of quality.

- Incorporates a US made pump – the largest in the industry
- Long life ceramic heater insures accurate and sufficient heat where you need it
- Adjustable air-flow
- Electronically controlled temperature system with digital readout in preset and actual temperature
- Automatic cooling mode protects the heating element
- Power supply: 100-120VAC or 220-240VAC
- Airflow capacity: 1.5L/min. to 28L/min.
- 310W nichrome heating element
- Hot air temperature range: 100° - 385°C (212° - 725°F)
- Size: 7.4"W x 9.6"D x 5.0"H



- 25W diaphragm pump
- Weight: 10.8 lbs.

**Includes:** Precision 5 pc. non-magnetic tweezer set, 4 focus hood tips (single 2.5mm and 4.4mm pipes, P/N 262895CH and 262908CH)

Part No.	Product No.	Description	1	5
262705CH	850D	Hot air SMD rework station with 4 focus hood tips	\$395.05	\$375.25
262983CH	HG850D	Heat gun replacement	78.95	74.95
262924CH	A1141B	Focus hood tip, PLCC 11.5 x 14	34.95	33.25
262810CH	A1135B	Focus hood tip, PLCC 17.5 x 17.5	34.95	33.25
262959CH	A1136B	Focus hood tip, PLCC 20 x 20	49.95	48.29
262836CH	A1137B	Focus hood tip, PLCC 30 x 30	49.95	48.29
262967CH	A1138B	Focus hood tip, PLCC 30 x 30	49.95	48.29
262895CH	A1125B	Focus hood tip, QFP 10 x 10	34.95	33.25
262908CH	A1126B	Focus hood tip, QFP 14 x 14	34.95	33.25
262772CH	A1128B	Focus hood tip, QFP 14 x 20	34.95	33.25
262916CH	A1127B	Focus hood tip, QFP 17.5 x 17.5	34.95	33.25
262852CH	A1261B	Focus hood tip, QFP 20 x 20	49.95	48.29
262844CH	A1182B	Focus hood tip, BQFP 24 x 24	49.95	48.29
262801CH	A1129B	Focus hood tip, QFP 28 x 28	49.95	48.29
262861CH	A1263B	Focus hood tip, QFP 28 x 40	79.95	75.95
262887CH	A1265B	Focus hood tip, QFP 32 x 32	79.95	75.95
262879CH	A1264B	Focus hood tip, QFP 40 x 40	79.95	75.95
262932CH	A1258B	Focus hood tip, SOP 7.6 x 12.7	34.95	33.25
262941CH	A1260B	Focus hood tip, SOP 8.6 x 18	34.95	33.25
262975CH	A1259B	Focus hood tip, SOP 13 x 28	49.95	48.29

## Vises

### Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty



Part No.	Product No.	Description	1	5
262115CH	GV-300	Vacuum vise ..	\$47.19	\$44.85

### Clamp Vise

- Lightweight, sturdy construction
- No tools needed – finger turn to tighten
- Ball cup allows vise to adjust to any angle
- Nylon jaws open 2"
- Size: 10.0"L x 2.5"W



Part No.	Description	Wt. (lbs.)	1	10
127167CH	Clamp vise	2.1	\$17.95	\$16.99

### Third Hand

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight: P/N 26690CH: 0.7 lbs.;
- P/N 72864CH: 1.4 lbs.



Part No.	Description	1	10	50
26690CH	Third hand	\$5.95	\$5.35	\$4.79
72864CH	W/ soldering holder	7.95	7.19	6.49

### Hobby Table Vise

Made of aluminum die cast construction, this is an ideal tool for the hobbyist.

- Jaw width: 2.4"
- Maximum opening: 2.0"
- Clamps to any surface up to 1" thick



Part No.	Description	Wt. (lbs.)	1	5
262001CH	Hobby vise	1.0	\$6.75	\$6.35

### PANAUSE Electronic Work Center

- Circuit board holder, standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty



Part No.	Description	1	5	10
27060CH	Electronic center	\$74.95	\$71.25	\$66.95

## Order Anytime, Day or Night

Our friendly sales department will take your order 24x7x365 by phone, fax, web or email.



## PANA VISE Vacuum Base Vise

An exceptionally lightweight, portable vice that firmly attaches to any flat, smooth, non-porous surface. A single knob locks the head into position, while a second locks the arm at any angle you select. This vise will hold any item weighing up to 3 pounds.



- Head moves through three planes: 210° tilt, 360° turn and rotation
- Grooved jaws are excellent for holding small objects and are made of reinforced thermal alloy and opens up to 2.9"
- Fine/coarse adjustment knobs control jaw pressure
- Arm movement is 140°; positive indents control movement to prevent "flopping"
- Lever locks vacuum pad into place on any flat, smooth, non-porous surface
- Jaw size: 2"H x 1"W
- Overall height: 7.5"H
- Base diameter: 3.4"
- Weight: 0.8 lbs.

Part No.	Product No.	1	10
251791CH	209	\$32.49	\$30.99

## PANA VISE Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty



Part No.	Product No.	1	10
27131CH	M381	\$55.95	\$53.25

## PANA VISE PV Jr. Vise

- Jaw opening: 2.8"
- Jaw size: 1" wide x 2" long
- Jaw heat tolerance: 350°F
- Vertical/horizontal jaw grooves
- Fine/coarse adjusting knob
- The vise neck tilts, turns and rotates
- Vise height: 6.8"
- Base bolt is 4.3" and fits all PanaVise base mounts
- Weight: 1.4 lbs.
- One-year warranty



Part No.	Description	1	10
134439CH	Jr. vise w/ mountable base	\$21.95	\$19.95

## Soldering Tip Cleaner with Stand and Rosin Paste Flux

156777CH:

- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability



73584CH: Highly active non-corrosive and non-conductive flux with excellent wetting action

Part No.	Description	1	10	50
156777CH	Tip cleaner & stand	\$4.95	\$4.49	\$4.05
160004CH	Metal wool replacement	2.79	2.49	2.29
73584CH	Rosin paste flux (2 oz.)	2.95	2.36	1.77

**For additional tools see pages 223 - 232.**

## Rosin Core Solder Rolls and Pocket Packs

Part No.	Mfr.	% Composition			Dia. (In.)	Wt. (lbs.)	Pricing			
		Tin	Lead	Silver			1	10	50	100
141778CH	Kester (pak)	60	40	0	.031	0.04	\$2.59	\$2.33	\$1.86	\$1.40
32117CH	Kester	60	40	0	.031	1.00	13.19	11.89	10.69	9.59
73605CH	Kester (pak)	62	36	2	.020	0.10	1.75	1.49	1.31	1.15
112344CH	Kester	63	37	0	.020	1.00	18.99	16.06	14.99	14.24
151474CH	Kester*	63	37	0	.031	1.00	17.69	15.95	14.35	12.89
170456CH	Golden	60	40	0	.031	0.06	1.39	1.25	1.05	.99
141794CH	Super	60	40	0	.031	0.55	5.95	5.39	4.85	4.35
141786CH	Super	60	40	0	.031	1.10	7.95	6.95	6.25	5.59
141778CH	Super	60	40	0	.031	2.20	13.95	12.95	11.95	10.95

\* Organic core



## Lead-Free Solder Tip Tinner

Prevents oxide buildup and tin depletion on the tip. Increases tip life and heat transfer resulting in a better solder joint!

- 0.7 oz. tin with self adhesive pad



Part No.	Description	1	10	50
132986CH	Lead-free tip tinner	\$4.95	\$4.59	\$4.19



## 5' No-Clean Desolder Braids

Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002.



Part No.	Description	1	10	100
139951CH	.030"W desolder braid	\$2.25	\$1.95	\$1.75
124126CH	.060"W desolder braid	2.35	2.15	1.95
124118CH	.075"W desolder braid	2.39	2.15	1.95
263708CH	.098"W desolder braid	2.59	2.35	2.23

## 5' Desoldering Braids

- Easy-to-use, handy dispenser
- Braided copper with flux



Part No.	Description	1	10	100
41081CH	.079"W braid (5')	\$1.49	\$1.27	\$0.95
41099CH	.098"W braid (5')	1.55	1.29	1.15
153461CH	.120"W braid (5')	1.59	1.39	1.25



## ProWick® Desoldering Braid

Pure Rosin

Finest oxygen-free and oil-free fine-gauge wire, the 100% copper wick is then coated with flux, which cleans connections thoroughly during desoldering to insure maximum solderability. The thin coating of flux also provides dependable, long lasting protection from oxidation.

- 263581CH with bobbin
- Length: 5'

Part No.	Product No.	1	10	100
263695CH	1803-5F (0.075"W)	\$1.95	\$1.77	\$1.68
263599CH	1804-5F (0.098"W)	2.09	1.89	1.79
263581CH	1811-5F (0.098"W)	2.39	2.19	2.09

## Desoldering Wick

No more burnt fingers

- Handy dispenser
- Length: 5'
- Pure copper braid
- No clean flux formula



Part No.	Description	1	10	25
175986CH	0.067"W braid	\$2.99	\$2.69	\$2.42

## Soldering Gun

This soldering gun with nozzle guide for solder is perfect for soldering through-hole components. Trigger action pulls out solder from the back of the soldering gun to the tip for the exact amount of solder.



- Power consumption: 40W
- 120 VAC
- Solder entrance at the back of gun accepts 0.8mm to 2.3mm diameter solder
- Single hand operation
- Size: 7.5"L x 1.4"W x 5.9"H
- Lightweight
- Weight: 0.7 lbs.

Part No.	Description	1	10	25
319169CH	Single feed soldering gun	\$37.15	\$33.19	\$31.55

## Clip-On Heat Sink

- Absorbs and dissipates heat during soldering and desoldering sensitive parts
- Size: 2.7"L x 0.7"W



Part No.	Mfr. Cross Ref. No.	1	10	25
159126CH	HT156	\$2.65	\$2.25	\$1.69

## Heat Sink and 7-Piece Soldering Aid Kit



100378CH: Heat sink absorbs and dissipates heat during soldering & desoldering of sensitive parts  
100503CH Includes soldering wick, 3 pc. scraper set, acid brush, clip-on heat sink and empty squirt bottle

Part No.	Description	1	10	50
100378CH	Heat sink	\$0.89	\$0.76	\$0.57
100503CH	Soldering kit	\$4.49	3.99	3.64



## Plastic Pump Bottle

- 6 oz. bottle
- ESD compliant
- Plastic bottle with dispenser cover



Part No.	Description	1	10	50
158131CH	Pump bottle	\$9.95	\$8.95	\$7.95

## Jameco's Got the Docs

We offer free technical documents for most of the products we carry. Find them easily on the product spec page @ [www.Jameco.com](http://www.Jameco.com)

## 3X, 3-Bulb Adjustable Magnifying Lamp

Adjustable rectangular 3-diopter lens allows independent movement of the lens for best lighting and viewing angles.

Three 9-watt compact fluorescent bulbs located to the side and top of the lens provide superior lighting to your workspace or job at hand. The integral spring-balance arm reduces the chance of pinched hands from springs, and provides a sleek clean look.

- 47" long arm
- 2 on/off buttons
- Color: beige
- UL listed
- Weight: 8.15 lbs.

Part No.	Description	1	10	25
217517CH	Adj. magnifying lamp ....	\$79.95	\$74.95	\$69.95

## Tweezers with 8X Magnifier

The perfect combination hand tool for professionals working with small objects. Magnifying glass stays in perfect focus with tweezer heads.

- Stainless steel construction
- Precision tip tweezers
- 1.2" diameter 8 diopter lens
- Length: 3.8"

Part No.	Description	Quantity	SAVE
217824CH	Tweezer magnifier .....	1	\$6.29 (\$4.80)

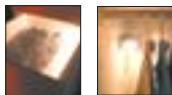
## General Purpose Illuminated 3X Magnifier

- 75mm diameter lens
- Great for magnifying fine print
- Light requires 2 AA batteries, see below
- Size: 7.5"L x 3.75"Dia.

Part No.	Description	1	10	25
149542CH	Illuminated magnifier .....	<del>\$4.49</del> \$4.19	\$3.56	\$2.84
151087CH	1.5V AA battery (req. 2) .....	.20	.17	.16

## Three Corner Touch Lights

Banish dark corners in your drawers, closets or workshop where you always need more light. This set of three corner-ready touch lights mount easily, and they're cordless, so they're all help and no hassle.



Drawer Closet

Part No.	Description	1	4
239345CH	Three corner touch lights .....	\$7.35	\$6.62

## For Batteries

See pages  
183 - 185



## 3X Magnifying Lamps

- 45" extension arm
- Supplied with 22-watt circuline tube
- New wire clip design permits easy installation
- Extra strong, all-metal mounting base with electrical outlet
- Metal bulb holder for extra protection
- Power requirement: 110VAC/60Hz
- 3X magnification • Weight: 7.3 lbs.

Part No.	Description	1	10	25
100829CH	Black lamp .....	\$59.95	\$53.95	\$49.95
149981CH	White lamp .....	59.95	53.95	49.95

## Standard Adjustable 3X Magnifying Lamp

- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- 3X magnification
- Power requirement: 110VAC/60Hz
- Weight: 2.9 lbs.

Part No.	Description	1	10	25
22710CH	Magnifying lamp .....	\$26.49	\$25.19	\$23.89

## Precision 5X Magnifying Lamp

The arm extends to 40", is adjustable to any direction or angle, and has a 5X magnifying glass with built-in light. This is the perfect tool to help identify small electronic components and magnify a printed circuit board to help solder electronic components.

- 5" diameter lens • Weight: 7.1 lbs.
- Power requirement: 110VAC/60Hz

Includes: 22W circuline fluorescent bulb

Part No.	Description	1	10	25
197456CH	Magnifying lamp .....	\$109.95	\$98.95	\$88.95

## 3X Magnifier with Adjustable Stand

- Heavy duty steel base
- Size: 15"L (full stand) x 4"Dia. (base)

Part No.	Description	Wt. (lbs.)	1	10
148881CH	Magnifier	2.5	\$13.95	\$12.56

## Flexible Neck Magnifier

Never squint again at small fine print or have a hard time holding a magnifying glass while holding two other tools with only two hands. Just simply clamp the magnifying lens on to a table or workbench and adjust the flexible gooseneck into position.

- 3.5" diameter & 3x diopter lens
- Arm length: 20" • Weight: 1.8 lbs.

Part No.	Description	Price
239548CH	Flexible neck magnifier .....	<del>\$12.99</del> \$11.49

**For Our Complete Selection of Tools  
see pages 201 - 211.**

## Super Bright, Super Reliable LED Flashlights

The perfect tool for individuals who really depend upon a flashlight that always works. Containing space-age solid-state circuitry, batteries last 14 times longer than conventional flashlights and function continuously up to one month. Its super bright white LEDs will last at least 11 years.

- Waterproof, designed for all weather conditions
- Shockproof, withstands a drop from 4'
- Low cost per hour of operation
- Industrial grade switch, rated for 10,000 operations
- Rubber over-molding

**215677CH:** One month continuous operation using three "D" cell batteries (not included, P/N 215845CH, pg 183)

• Weight: 0.8 lbs.

**215685CH:** 25-days continuous operation using three "C" cell batteries (not included)

• Weight: 0.6 lb.

**215693CH:** 14-days continuous operation using three "AA" cell batteries (not included, P/N 198707CH, pg 183)

**262422CH:** 210 hours of continuous operation using 3 "AAAA" batteries (included)

**261972CH:** Headtorch delivers 330 hours of continuous operation using 3 "AA" batteries (not included, use P/N 198707CH, pg 183)

Part No.	Prod. No.	LEDs	Length	1	10
215677CH	LW-4000	10	10.6"	\$63.95	\$60.79
215685CH	LW-3000	7	8.9"	<del>\$53.95</del> \$49.95	44.96
215693CH	LW-2100	4	7.9"	<del>\$33.95</del> \$31.95	29.63
262422CH	LW-TEC1000	1	—	21.79	20.55
261972CH	LW-HT	4	—	37.95	34.16

## 8-Position Flashlight Holder



The Lite-Lok would be useful enough as a tough, wall- or belt-mountable flashlight holster. But there's more! Clip the flashlight on your belt and lock it into one of eight positions for a "third hand" when working in dark areas. Includes Mini-Maglite®.

Part No.	Description	Price
240004CH	Lite-Lok with mini AA flashlight .....	\$13.99





135394CH - Electrolytic



135271CH - LEDs



169578CH - Photocells



18294CH - Toy Motors



149649CH - Fans



55968CH - Spacers



319599CH - Cabinet

\* "LB" grab bag quantities are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 319599CH

Shaded in brown on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P/N 163213CH) referenced towards the bottom of the page.

## Capacitors

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17857CH	GB100	200 asst. ceramic disc capacitors	0.2 .....	\$4.95	\$4.49
135335CH	GB100LB*	1 lb. (813 pcs) asst. ceramic disc caps.	1.0 .....	12.95	11.49
17881CH	GB101	100 assorted mylar capacitors	0.3 .....	5.95	5.35
135458CH	GB101LB*	1 lb. (440 pcs) asst. mylar capacitors	1.0 .....	14.95	13.49
17911CH	GB102	100 assorted electrolytic capacitors radial, axial, snap	0.5 .....	4.95	4.49
135394CH	GB102LB*	1.5 lb. assorted (300 pcs) electrolytic caps. radial, axial, snap (photo above)	1.5 .....	12.95	11.49
17945CH	GB103	100 assorted tantalum capacitors (dipped epoxy and solid tubular)	0.1 .....	9.95	8.95

## Diodes, Transistors and Crystals/Oscillators

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
17961CH	GB107	200 assorted diodes (zener, switching, silicon)	0.1 .....	\$5.95	\$5.35	\$4.79
18171CH	GB127	100 assorted transistors (NPN, PNP, power)	0.1 .....	5.95	5.35	4.79
114446CH	GB150	50 assorted crystals/oscillators	0.2 .....	7.95	6.95	6.25

## Trimmer and Single-Turn Potentiometers

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18075CH	GB113	100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values)	0.1 .....	<del>\$6.95</del> \$5.15	\$4.66
18278CH	GB174	100 assorted 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	0.2 .....	6.95	6.25
135407CH	GB174LB*	1 lb. (295 pcs) 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	1.0 .....	<del>\$15.95</del> 11.75	10.66

☛ Blue Part No. = Limited Quantity Available

## Integrated Circuits and Sockets

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17996CH	GB108	100 assorted 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	0.2 .....	\$6.95	\$6.25
135280CH	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	1.0 .....	16.95	14.95
18024CH	GB109	100 asst. linear series (LM300, 500, 700, 7800, 7900 reg.) DIP, TO-3, TO-220	0.6 .....	7.95	6.95
145242CH	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)	2.0 .....	16.95	14.95
105620CH	GB120	100 asst. sockets (DIP IC, PGA)	0.3 .....	5.95	5.35
135386CH	GB120LB*	1 lb. (260 pcs) assorted sockets (DIP, PGA, SIMM, SIP, DIN)	1.0 .....	12.95	11.49



## Get a Grip on Grab Bags

Outfitting a workbench or getting a new lab assistant up and running? Get their workbench stocked with the components they need and minimize delays. Each of the grab bags on this page will do just that. They're cheaper than buying piece-meal, and it takes far less time to order!

**Practical Practices**  
Money Saving Tips for the Engineer

## LEDs and Displays

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
18041CH	GB110	100 assorted sizes & colored LEDs (T1&T1 <sup>3</sup> / <sub>4</sub> round and rectangular)	0.1 ...	\$6.95	\$6.29	\$5.65
18323CH	GB186	500 asst. sizes #18041CH LEDs	0.3 ...	19.95	17.95	15.95
135271CH	GB110LB*	1 lb. (1900 pcs) asst. #18041CH LEDs	1.0 ...	44.95	40.95	38.95
18201CH	GB162	50 asst. sizes of colored displays (7-segment LED, modules, stick)	0.5 .....	9.95	7.45	6.69

## 1/4W, 1/2W Resistors and Photocells

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18104CH	GB116	200 asst. 1/4W resistors (5&10%)	0.1 .....	\$5.49	\$4.95
135351CH	GB116LB*	1 lb. (2000 pcs) asst. 1/4W resistors	1.0 .....	14.95	13.49
18139CH	GB117	200 asst. 1/2W resistors (5&10%)	0.2 .....	5.95	5.35
169578CH	GB125	100 asst. values photocells	0.2 .....	12.95	11.49

## Switches, Toy Motors and Fans

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18235CH	GB165	50 assorted switches (toggle, pushbutton, rocker, slide)	0.4 .....	\$8.75	\$7.69
135378CH	GB165LB*	1 lb. (135 pcs) asst. #18235CH switches	1.0 .....	18.95	16.95
18294CH	GB182	5 asst. toy DC motors (1.5-24V)	1.1 .....	5.49	4.95
149649CH	GB193	5 asst. AC&DC fans (photo above)	4.5 .....	8.75	7.69

## Hardware Assortments

- 2-56 • 4-40 • 6-32 • 8-32 • Screws • Plastic
- Nuts • Washers • Steel • Brass • Lock Washers • Aluminum

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
171571CH	GB149*	1 lb. (500 pcs) asst. types of screws, nuts, washers & lock washers	1.0 .....	\$5.95	\$5.35	\$4.79
171635CH	GB149LB*	3 lbs. (1400 pcs) asst. types; same as P/N 171571CH (above)	3.0 .....	12.95	11.49	9.95

## Spacers and Standoffs Assortments

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
166481CH	GB440	100 asst. 4-40 spacers/standoffs	0.5 ...	\$6.95	\$6.25	\$5.59
166490CH	GB632	100 asst. 6-32 spacers/standoffs	0.5 .....	6.95	6.25	5.59
55968CH	GB140	100 asst. 4-40, 6-32, 8-32 round/hex, alum/brass/nylon spacers	0.3 .....	9.95	8.95	7.25
135423CH	GB140LB*	1 lb. (310 pcs) same as P/N 55968CH	1.0 ...	17.95	15.95	13.95

## Schwab's School Selection

Jameco's nine most popular Grab Bags (highlighted on this page) are all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommended a 20-drawer component cabinet with labels (319599CH photo above) for storage. What's your suggestion?  
**Includes:** Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, LEDs, 1/4W resistors, switches, spacers and standoffs.

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
163213CH	GB197	Schwab's School Selection	3.3 .....	\$39.95	\$34.95
319599CH	GB197	20 drawer component cabinet	4.7 .....	15.95	13.95

Visit our website to find more products  
[www.Jameco.com](http://www.Jameco.com)

## Heat Sink Compound

- 1 gram tube
- 5/pack
- Color: white gel

Part No.	Mfr. Cross Ref. No.	1	10	25
259151CH	NTE303	\$1.65	\$1.55	\$1.48



## Heat Sink Compound

Thermally loaded silicone-based grease that improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink.

- Color: opaque white

Part No.	Mfr. Cross Ref. No.	1	10	100
167249CH	THM250 (2 oz.)	\$9.95	\$8.96	\$8.06
236822CH	54114 (1 oz.)	4.95	4.21	3.16



**Quantity SAVE**

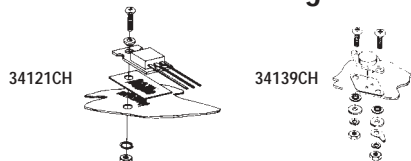
## Heat Sink Compound 4-oz. Tube

This silicone-free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave-solder baths.



Part No.	Product No.	1	10
169252CH	1978DP	\$16.95	\$14.95

## Heat Sink Mounting Kits



- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

Part No.	Type	Description	1	10	100
34121CH	TO-220	5 pcs per kit ...	\$3.95	\$3.55	\$3.19
34139CH	TO-3	12 pcs per kit ...	3.95	3.59	3.25

## DATA Direct Etch PCB "Starter" Set

Includes: 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIP, patterns, lines and 1/32" & 1/16" etch resist tape.



Part No.	Product No.	Wt. (lbs.)	1	10
70412CH	ER1	0.7	\$11.95	\$10.95

## DATA Pre-Sensitized Circuit Boards & Developer

- Pre-coated circuit board
- Size: 3.0"L x 4.0"W x 1/16" T

Includes: Instructions 156751CH

Part No.	Description	Wt. (lbs.)	1	10	25
156751CH	Single sided	—	\$4.95	\$4.49	\$3.95
156742CH	Double sided	—	6.49	5.85	5.25
156734CH	4 oz. Pos. developer*	0.6	6.95	5.95	4.95

\* Shipped via UPS ground to continental U.S. only

## Acid Brush

- Used for application of reactive solvents

Part No.	Description	1	10	100	1000
153322CH	Metal handle, 6"	\$0.65	\$0.59	\$0.47	\$0.35

**Quantity SAVE**

Color Code Legend
New Sale Lower\$ QtySave



- Safe on plastics
- EPA SNAP approved, no CFCs or HCFCs



263530CH 139934CH 118033CH 263564CH

## Enviro-Tech™ Duster

Removes microscopic contaminants, lime, dust, metallic oxide, deposits, and other soils without the use of harmful solvents.

Part No.	Description	Wt. (lbs.)	1	12
139900CH	10 oz. aerosol w/ trigger*	0.8	\$6.95	\$6.25
263530CH	15 oz. aerosol w/ trigger*	0.8	8.25	7.49

## Enviro-Tech™ Freezer

Rapidly evaporating liquid that can chill to -62°F.

Part No.	Description	Wt. (lbs.)	1	12
139934CH	10 oz. aerosol can*	0.8	\$8.99	\$7.99

## ECOLINE Flux Remover

- Dissolves R, RMA, RA, SA & most no-clean fluxes

Part No.	Description	Wt. (lbs.)	1	12
118041CH	10 oz. flux remover*	0.8	\$9.49	\$8.55

## ECOLINE Contact Cleaner

- Ideal for switches, relays & other places on electrical connections
- Will not damage switch housings

Part No.	Description	Wt. (lbs.)	1	12
118033CH	10 oz. contact cleaner*	0.9	\$8.95	\$7.95

## TechClean® Wiper

This hydro-entangled cellulose/polyester wipe has high absorbency with extra-low particulate and chemical extractables.

Part No.	Description	Wt. (lbs.)	1	12
263564CH	100 sheet/pk	1.1	\$15.59	\$14.25

## Isopropyl Alcohol

99.8%+ pure, anhydrous isopropanol for all-purpose cleaning. Excellent for tape head cleaning, removal of fluxes, light oils, polar soils, and white mineral residue.

Part No.	Description	Wt. (lbs.)	1	12
263572CH	1 pint bottle*	1.1	\$7.35	\$6.69

\* Shipped via UPS ground to continental U.S. only

## DATA Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing & etching. No camera or darkroom is required.

Part No.	Product No.	Wt. (lbs.)	1	10
16731CH	12-750*	4.6	\$39.95	\$36.95

## DATA Dry Concentrated Etchant

- Makes one pint of etch solution

Part No.	Product No.	1	10	25
70201CH	ER3	\$3.95	\$3.49	\$3.15

\* Shipped via UPS ground to continental U.S. only

## Workshop Chemicals



## Fine-L-Kote™ Silicone Conformal Coating

A type SR silicone resin conformal coating that has excellent moisture and fungus resistance properties, offers chemical resistance and is recommended for harsh environments. Contains Opti/Scan™ to allow for black light inspection.

Part No.	Description	Wt. (lbs.)	1	12
263548CH	12 oz. aerosol can*	1.0	\$16.79	\$15.95

## Fine-L-Kote™ Urethane Conformal Coating

As a urethane coating, this is highly resistant to most solvents, moisture, fungus, and molds. A clear, repairable coating, it is formulated with a black light indicator Opti/Scan, to provide checks for conformity in quality control.

Part No.	Description	Wt. (lbs.)	1	12
263556CH	12 oz. aerosol can*	1.0	\$15.45	\$14.69

## Flux Remover Pen

A unique combination of hydrocarbon solvents and alcohols makes it an excellent defluxer. This can also be used as an all-purpose cleaner for removal of light oils, silicones, waxes, greases, and similar contaminants.

Part No.	Product No.	Wt. (lbs.)	1	12
263724CH	11.5 ml pen	0.1	\$6.19	\$5.61

## Conductive Pen

Contains a fast-drying, silver-filled ink designed to quickly make highly conductive silver traces.

- Repairs traces
- Links components
- Makes smooth jumpers
- Shields components

Part No.	Description	Wt. (lbs.)	1	12
263716CH	4.89 ml pen	0.1	\$12.69	\$12.05

## Overcoat Green Pen

Designed to insulate printed circuit board traces and components against high voltage arcing, and provides protection from moisture. Configured for rework and repair where precision application is necessary.

- Protects conductive pen traces
- Repairs permanent solder mask

Part No.	Description	Wt. (lbs.)	1	12
263732CH	5 ml pen	0.1	\$9.85	\$9.36

**Over 99% of Our Products Are In Stock**

Place your order  
by 6PM EST for same  
business day shipment.

# Solderless Breadboards, Prototype Boards & Accessories

Color Code Legend  
New Sale Lower\$ QtySave

JAMECO

ValuePro

## Solderless Breadboards

Feature screen-printed color coordinates suitable for many types of digital and analog prototyping, and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681CH (pg 243).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- One-year warranty \* WBU5 and JE series do not interconnect



20757CH



20773CH



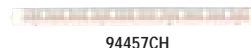
20790CH



20811CH



20600CH



94457CH



20669CH



20722CH



136901CH



77825CH

Attention Educators! Buy jumper wire (pg 243) in bulk and SAVE! (see Hook-up Wire on page 88)

### WBU5 Series Key Features:

- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins to be inserted across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent parts tightly together

### JE Series Key Features:

- Use to breadboard and debug circuit designs
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (P/N 19289CH & 20079CH, pg 243)
- Some models feature heavy-duty aluminum backings (JE24, JE27, WBU504)

Part Number	Product Number	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L" x W"	Baseplate Size L" x W"	Weight (lbs.)	Pricing			
									1	10	50	100
94457CH	JE19	0	1	100	0	6.5 x 0.4	—	0.04	\$2.95	\$2.65	\$2.39	\$2.15
20600CH	JE21	1	2	400	0	3.3 x 2.1	—	0.13	5.25	4.73	4.25	3.83
20669CH	JE22	1	0	630	0	6.5 x 1.4	—	0.20	5.49	4.95	4.49	3.95
194280CH	JE35	1	1	740	0	6.9 x 2.1	—	0.23	<del>\$9.95</del> 8.95	8.06	6.44	4.83
194298CH	JE37	1	2	840	0	6.9 x 2.4	—	0.25	9.95	8.95	7.95	7.25
194255CH	JE38	1	2	970	4	2.9 x 5.6	4.9 x 6.3	0.50	16.95	15.25	13.75	12.35
20722CH	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	9.39	8.45	7.61	6.85
194271CH	JE34	2	3	1,560	3	6.5 x 4.0	8.5 x 4.7	0.73	15.95	14.39	12.95	11.65
20757CH	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	13.65	12.28	11.06	9.95
136901CH	WBU504*	2	3	1,855	4	5.5 x 5.5	7.4 x 6.3	0.90	22.99	20.99	18.99	16.99
20773CH	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	19.95	17.95	16.16	14.54
20790CH	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	27.29	24.56	22.10	19.89
20811CH	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	33.59	30.23	27.21	24.49

## Great Savings on Breadboard Test Leads

Part No.	Description	1	10	25
77825CH	Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 20 AWG wire, 5.9"L (15cm)	\$12.95	\$11.69	\$10.49

## PLCC Prototype Adapters

PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with 0.25" long leads.



Quantity SAVE 73550CH

- PCB construction • Gold-plated round pins
- Silkscreen numbers identify pin numbers in groups of 5 and 10 • Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover

Part No.	Pins	Size (L x W)	1	10	100
73541CH	44	2.3" x 1.6" ...	\$11.95	\$10.79	\$9.69
73550CH	68	3.4" x 1.6" .....	15.95	13.56	<b>10.17</b>
73568CH	84	4.3" x 1.9" .....	23.95	20.36	<b>15.27</b>

## PCI-Bus Prototype Board

- All plated through holes
- 0.1" hole spacing
- 50 Mil power and ground grids
- Provision for wire wrap and bypass caps
- Impedance matched to bus specifications
- Easy access to every signal on the bus
- Size: 12.4"L x 5.0"W • Weight: 0.6 lbs.



SALE

Part No.	Description	1	10
141372CH	PCI prototype bus board	<del>\$74.95</del> \$69.95	\$62.96

## Making Your Own Printed Circuit Board Book

JV Enterprises No darkroom or special equipment needed. Shows steps for drilling and shaping your printed circuit board and the materials you will need. (91 pages)

SALE



Part No.	Description	Price
141524CH	Making PCBs Book	<del>\$19.95</del> \$17.95

## 8/16-Bit ISA Solderless Plug-In Breadboard



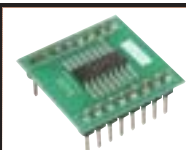
- IBM PC/XT/AT and higher compatible
- 62 data I/O lines and a DB25 female connector for interfacing to peripherals
- Twenty-four 14-pin IC capacity
- Clearly labeled bus lines
- 2,352 contact points
- Durable construction
- Size: 13.8"L x 5.0"W
- One-year warranty
- Weight: 1.0 lb.

Easy PC/XT/AT Prototyping!

SALE

Part No.	Description	1	10	25
81672CH	8/16-bit breadboard	<del>\$59.95</del> \$49.95	\$48.60	\$47.24

For Jameco's Surface Mount Prototyping Boards. See page 246





## Wire Jumper Kit (350 pcs.)

- 25 each 0.1" to 5.0" lengths (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers



19289CH

**19289CH: 350-piece wire jumper kit**

- Handy, durable, clear plastic case

**20079CH: 350-piece refill for 19289CH**

- Case not included

Part No.	Description	1	10	50	100
19289CH	Wire jumper kit ..	\$15.95	\$14.39	\$12.95	\$11.65
20079CH	Refill for 19289CH ...	10.99	9.89	8.90	8.01

## Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue



126341CH

Part Number	Mfr. Ref. No.	Cross Length (mm / inch)	1	10	100
126359CH	JW50	50 / 1.97	\$3.95	\$3.49	\$2.95
126341CH	JW100	100 / 3.94	4.95	4.49	4.05
126324CH	JW200	200 / 7.87	5.19	4.69	4.25

## Resistance and Capacitance Decade Substitution Boxes

Wide-range decade substitution boxes for product design or calibration checks.



- Light durable construction
- Case may be grounded separately
- Three binding posts permit isolated substitutions
- Size: 4.7"W x 5.7"H x 1.4"D
- Weight: 0.7 lbs.



211668CH

**211668CH:**

- 1% resistance substitution from 1Ω to 11.111110MΩ
- 7 decade ranges of resistance
- Values can be changed in 1Ω increments



211676CH

**211676CH:**

- 5% capacitance substitution from 100pF to 11,111μF
- 5 decade ranges of capacitance

Part No.	Description	1	10
211668CH	Resistance .....	\$98.95	\$93.95
211676CH	Capacitance .....	128.95	122.45

## Commercial Customers

Open an account with us to consolidate your monthly billing and save time.

## Digital/Analog Design Labs

Lower \$\$\$

- Two 7-segment displays (digit height: 0.3")
- One-year warranty

### Solderless Breadboard

- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

### DC Power Supplies

- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A

### Function Generator (5 ranges)

- Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vp-p variable
- Triangle wave output: 6Vp-p fixed
- Square wave output: ±5V fixed



75838CH

International 115/220VAC Switchable



201890CH

Part No.	Tie Points	Fixed Power Supply	Pulse Generator	Frequency Counter	Multimeter	Includes
75838CH	1580	+5VDC @ 1.0A	No	No	DCV (Digital)	Power cord, manual
201890CH	2960	+5VDC @ 0.5A	1Hz to 1MHz switchable	Yes	ACV, DCV, DCmA, resistance (analog)	Power cord, enclosed case, test lead, jumper wire kit, DB25 serial adapter, manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
75838CH	Digital lab	10.6 x 13.3 x 5.0	8.1	\$276.95	\$249.95	\$226.95
201890CH	Digital/analog lab	13.9 x 12.8 x 4.9 (back panel)	11.8	429.95	365.46	305.56

## Digital/Analog Design Lab

### Solderless Breadboard

- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

### DC Power Supplies

- Variable DC output: 0 to +15V & 0 to -15V @ 500mA
- Fixed DC output: +5VDC @ 1A; -5VDC @ 300mA
- Input power: 120/220VAC @ 50-60Hz (switchable)

### Function Generator

- Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vpp variable
- Triangle wave output: 0-6 Vpp variable
- Square wave output: 0-8 Vpp variable

### Other features:

- 2 variable resistors: VR1=1kΩ, VR2=100kΩ
- 8 data switches
- 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: A, A, B, B)
- 2 banana sockets, 2 BNC jacks
- One-year warranty
- Two 7-segment LED displays (digit height: 0.3")
- 8 red LEDs with separate input terminals

Includes: Power cord and manual

International 120/220VAC Switchable



Part No.	Description	Size (W" x D" x H")	Wt. (lbs.)	1	10	25
136266CH	Digital/analog lab	12.8 x 9.8 x 3.7	8.5	\$379.95	\$341.99	\$307.79
319214CH	Replacement breadboard	6.7 x 6.5 x 0.4	0.5	24.45	22.28	21.16

## Powered Project Board

- Solderless breadboard with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- Back panel has ground terminal
- Outputs are short-circuit protected
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Replacement fuse: P/N 103907CH, pg 79
- Power switch with light
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H
- Weight: 6.8 lbs.
- One-year warranty



International 120/220VAC Switchable

Includes: Power cord

Part No.	Description	1	10	25
136258CH	Powered breadboard	\$99.95	\$89.95	\$87.95

## AC/DC Power Supply

Ideal for Breadboards on previous page



International 120/220VAC Switchable

### Output Specifications:

- +5VDC @ 1A;
- 5V @ 300mA fixed;
- 0 to +15VDC @ 500mA variable;
- 0 to -15VDC @ 300mA variable;
- 12-6-0-6-12 lapped VAC, 300mA fixed

With built-in short-proof regulated power supplies.

- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Just plug-in and start to use
- Compact & lightweight
- For both digital and analog circuits
- Compatible with test leads P/N 77841CH, pg 220
- Size: 7.4"W x 5.5"D x 2.6"H
- Color: beige
- Weight: 5.5 lbs.
- One-year warranty

Part No.	Description	1	10	25
77681CH	Power supply ...	\$119.95	\$109.95	\$99.95



See pages 214 - 215 for Jameco's complete selection of Power Supplies.



**JAMECO ValuePro**

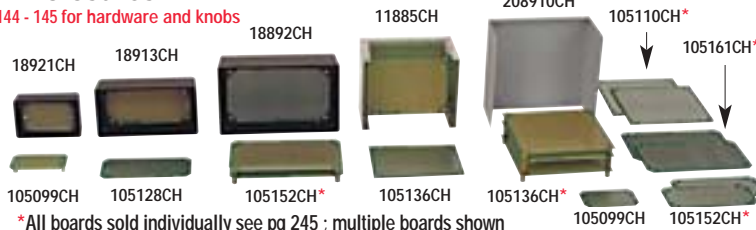
The prototype builder boards on pg. 245 are designed to fit into our ABS plastic and aluminum enclosures, metal cabinets and heavy-duty instrument cases. The pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed on pg 245 (P/N 106551CH).

**Board description:** laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.

## Enclosures

See pages 144 - 145 for hardware and knobs

Call for additional OEM pricing.



\*All boards sold individually see pg 245 ; multiple boards shown

## ABS Plastic Enclosures

Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid.

All sizes below are for interior dimensions.

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921CH	H2855	3.1" x 2.0" x 0.9"	0.1	\$3.15	\$2.84	\$2.55	\$2.30
18913CH	H2853	4.9" x 2.5" x 1.5"	0.2	3.69	3.32	2.99	2.69
18892CH	H2851	6.0" x 3.5" x 1.9"	0.4	4.79	4.31	3.88	3.49
18905CH	H2852	7.5" x 4.3" x 2.3"	0.5	6.89	6.20	5.58	5.02

## Die-Cast Aluminum Enclosures

Ideal for RF circuits. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11957CH	B5002	3.9" x 2.0" x 1.0"	0.2	\$5.95	\$5.39	\$4.85	\$4.35
11965CH	B5004	4.7" x 2.4" x 1.6"	0.4	8.49	7.64	6.88	6.19
11973CH	B5006	7.5" x 4.3" x 2.4"	1.2	13.95	12.56	11.30	10.17

## Aluminum Enclosures

Quantity SAVE

Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11869CH	B2300	4.0" x 2.0" x 2.8"	0.2	\$5.45	\$4.90	\$3.92	\$2.94
11885CH	B2320	5.0" x 4.0" x 3.0"	0.4	7.89	7.10	5.68	4.26
11893CH	B2335	7.0" x 6.2" x 4.6"	0.8	10.95	9.86	7.88	5.91

## Metal Enclosures

- Mounting screws and rubber feet included
- Glossy black textured steel top cover and ivory aluminum base

Quantity SAVE

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
208901CH	B2741A	4.0" x 3.3" x 2.2"	0.4	\$6.49	\$5.89	\$5.29	\$4.69
208910CH	B2743A	5.9" x 5.3" x 3.0"	0.8	7.99	7.19	6.49	5.89
208928CH	B2744A	7.3" x 6.3" x 2.8"	1.1	8.99	7.99	7.19	6.49
209349CH	B2746A	6.3" x 7.8" x 2.5"	0.9	12.35	11.12	8.89	6.67
209357CH	B2747A	7.5" x 9.8" x 3.2"	1.4	14.99	13.49	10.79	8.09

## Heavy-Duty Instrument Cases

P/N 18876CH includes ventilation and speaker sound slots.

• Color: gray

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18868CH	H2505	7.9" x 6.3" x 2.5"	0.8	\$7.89	\$7.10	\$6.39	\$5.75
18876CH	H2507	10.0" x 7.5" x 3.1"	1.4	8.99	7.99	7.28	6.55

## ABS Enclosures w/ Clear Tops

Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
141831CH	203C1	4.6" x 3.2" x 1.8"	0.3	\$8.95	\$8.09	\$7.25	\$6.55
141840CH	203D1	6.3" x 3.2" x 1.8"	0.4	9.95	8.99	8.09	7.25
141858CH	203F1	7.0" x 5.5" x 2.5"	0.8	11.95	10.79	9.69	8.69

## Component Cabinet



- Drawer can be divided into 3 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 14.7"W x 7.4"H • Wt.: 2.8 lbs.

319601CH size: 5.5"L x 2.7"W x 1.5"H

319610CH size: 2.5"W x 1.2"H

85454CH size: 5.5"L x 2.7"W x 1.5"H

85446CH size: 2.4"L x 1.1"H

**Includes:** 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

\* Prepackaged: order in increments of 10 or 50

Part No.	Description	1	10	50
319599CH	Component cabinet	\$15.95	\$13.95	\$12.49
319601CH	Drawer for cabinet	.39	.35	.294
319610CH	Divider for cabinet	.*	.19	.17
85454CH	Drawer for P/N 81701	.39	.35	.29
85446CH	Divider for P/N 81701	.*	.19	.17

## Plastic Fliptop Box

## Double-Sided Box

- Unique double-sided design allows box to be opened from both top and bottom • Size: 6.5"L x 4.0"W x 1.5"H

Part No.	Description	1	10	100
148865CH	Double sided box	\$1.89	\$1.71	\$1.55

## Plastic Fliptop Boxes

- Clear plastic box with a clear plastic lid and removable dividers
- 100255CH: Size: 8.4"L x 4.5"W x 1.4"H • 18 compartments (1.4" x 1.5" each)
- 148902CH: Size: 10.2"L x 4.7"W x 1.6"H • 12 compartments (1.7" x 2.3" each)

Part No.	Description	1	10	100
100255CH	18 compartments	\$2.25	\$1.95	\$1.75
148902CH	12 compartments	3.95	3.49	2.95

## Plastic Fliptop Case for SMDs

## 128 Compartments for Surface Mount Components

- 8 rows x 16 columns grid
- Fliptop openings on each bin
- Padded cover locks bins closed
- Perfect match to store P/N 156881CH SMD resistor assortment, pg 72 • Weight: 1.4 lbs.
- Color: gray • Size: 11.0"L x 8.3"W x 1.7" Thick

**Includes:** Labels for each bin

Part No.	Description	1	10
164267CH	SMD fliptop case	\$49.95	\$44.99

## Stackable Drawers

- Case size: 4.5"L x 4.4"W x 2.3"H
- Drawer size: 4.4"L x 4.0"W x 0.9"H
- Color: blue/white

Part No.	Description	1	10	100
11906CH	Case/drawers	\$2.95	\$1.85	\$1.68

## Bug Boxes

- Anti-static plastic
- Fits in bug cage (P/N 11332CH, below)
- 11341CH: stores sixty 8-pin or thirty 16-pin DIPs
- 11375CH: Designed to store all types of components
- Box size: 4.9"L x 3.3"W x 0.6"H

Part No.	Description	1	10	100
11341CH	30 compartments	\$3.95	\$3.49	\$3.15
11375CH	3 compartment/6 vertical & 6 horizontal dividers	3.95	3.56	3.20

## Bug Trays

- Fits in bug cage (P/N 11332CH, below)
- 11826CH Open: 1 compartment 4.6"L x 3.2"W x 0.4"H
- 11800CH Divided: 10 compartments 3.2"L x 0.4"W x 0.4"H ea. • Tray size: 4.8"L x 3.6"W x 0.5"H

Part No.	Description	1	10	100
11826CH	Open bug tray	\$1.79	\$1.61	\$1.46
11800CH	Divided bug tray	3.19	2.87	2.58

## Bug Cage

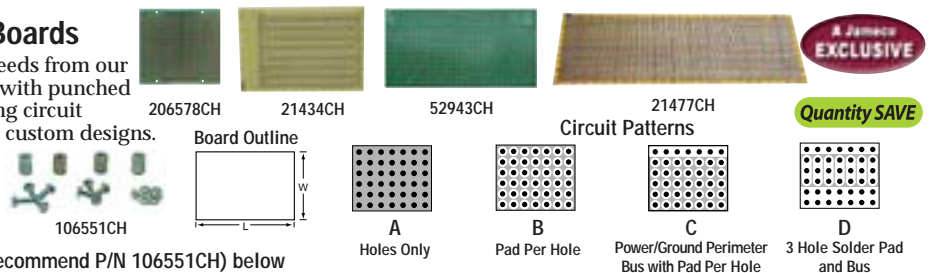
- Holds bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Case size: 5.0"L x 3.9"W x 5.1"H

Part No.	Description	1	10	100
11332CH	Bug cage	\$7.49	\$6.74	\$6.07

## General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- PCB material epoxy glass
- Plated through pads are double-sided



See PCB enclosures on pg 244, mounting hardware (recommend P/N 106551CH) below

Part Number	Product Number	Size (W" x L")	Fits Enclosure(s) (see page 245)	Circuit Pattern	Hole Pads	# Holes x Dia. ↑	Power/Ground Busses	Connector I/O or Edge	# Mounting Holes x Dia.	Weight (lbs.)	Pricing			
											1	10	50	100
105099CH	2855PCB	1.60 x 2.70	18921CH	B	Single-sided	288 x .035"	None	None	2 x .115"	.02	\$5.25	\$4.73	\$4.25	\$3.83
105101CH	5002PCB	1.50 x 3.50	11957CH	C	Single-sided	365 x .038"	4	None	2 x .140"	.02	6.95	6.25	5.59	4.95
263185CH	PCB-403	1.80 x 3.10	18921CH	B	Plated through	300 x .042"	None	None	4 x .115"	.03	6.95	6.25	5.63	5.09
105128CH	2853PCB	2.00 x 4.40	18913CH, 11965CH	C	Single-sided	669 x .038"	4	None	4 x .140"	.03	7.95	6.95	6.25	5.59
105110CH	2300PCB	2.40 x 3.40	11869CH	C	Single-sided	637 x .038"	4	None	2 x .140"	.03	7.95	6.95	6.25	5.59
263206CH	PCB-463	2.40 x 4.10	N/A	B	Plated through	640 x .042"	None	None	4 x .120"	.05	8.95	8.09	7.25	6.55
263214CH	PCB-858	2.50 x 4.50	18913CH	B	Plated through	640 x .042"	None	None	4 x .120"	.05	8.95	8.09	7.25	6.55
105152CH	2851PCB	3.10 x 5.50	18892CH	C	Single-sided	1450 x .035"	7	None	4 x .140"	.07	9.95	8.95	7.95	6.95
263222CH	PCB-69	3.30 x 3.70	N/A	B	Single-sided	900 x .042"	None	None	4 x .120"	.05	8.95	8.09	7.25	6.55
105136CH	2320PCB	3.30 x 4.50	11885CH	C	Single-sided	1266 x .035"	4	None	4 x .140"	.06	9.95	8.95	7.95	6.95
105161CH	2852PCB	3.60 x 7.00	18905CH, 11973CH	B	Single-sided	2225 x .035"	4	None	4 x .140"	.10	14.95	13.45	11.95	10.95
206586CH	2746APCB	4.30 x 6.80	209349CH	C	Single-sided	2550 x .042"	5	None	4 x .140"	.07	10.95	9.86	8.87	7.98
21434CH	JE401(8001)	4.50 x 6.50	18868CH	B/D	Single-sided	2360 x .042"	2	None	None	.12	21.95	19.76	17.78	16.00
21451CH	JE405(8003)	4.50 x 6.50	18868CH	C	Single-sided	2360 x .042"	1	None	None	.12	19.95	17.95	14.36	10.77
206578CH	2743APCB	4.60 x 4.30	208910CH	C	Single-sided	1684 x .042"	5	None	4 x .140"	.07	7.49	6.74	6.07	5.46
105179CH	2505PCB	5.00 x 6.50	11893CH, 18868CH	C	Single-sided	2829 x .035"	7	None	8 x .120"	.13	14.95	13.49	11.95	10.95
21477CH	JE407(8006)	5.00 x 13.25	N/A	B	Plated through	6063 x .038"	None	None	8 x .120"	.28	41.19	37.07	29.66	22.24
206594CH	2747APCB	5.50 x 8.00	209357CH	C	Single-sided	3906 x .042"	5	None	4 x .140"	1.0	14.99	13.49	10.79	8.09
105187CH	2507PCB	6.10 x 8.80	18876CH	C	Single-sided	4771 x .035"	7	None	8 x .140"	.21	29.95	26.96	21.56	16.17
263231CH	PCB-7038	8.30 x 11.9	N/A	B	Plated through	8819 x .042"	10	5	4 x .115"	.40	55.95	52.19	49.59	47.09
263249CH	PCB-6088	9.20 x 13.0	N/A	B	Plated through	11,000 x .042"	10	None	13 x .115"	.50	55.95	52.19	49.59	47.09

## Other Manufacturers — Limited Great Deals

**SALE**

28177CH	PCB1	2.42 x 4.10	18913CH	C	Plated through	674 x .040"	None	None	4 x .120"	.04	\$5.95	\$5.35	\$4.79	\$4.29
43140CH	64P44XXP*	4.50 x 6.50	18868CH	A	Drilled only	2860 x .042"	None	None	None	.09	5.75	5.66	5.56	5.46
52943CH	84P44WE	4.50 x 8.50	18876CH	A	Drilled only	3740 x .042"	None	None	None	.15	8.99	8.85	8.71	8.57
37604CH	169P44WE	4.50 x 17.0	N/A	A	Drilled only	7524 x .042"	None	None	None	.31	16.25	15.66	15.06	14.47
37612CH	169P44XXP*	4.50 x 17.0	N/A	A	Drilled only	7524 x .042"	None	None	None	.25	10.69	10.49	10.28	10.09
28193CH	PCB3	5.00 x 8.00	18876CH	C	Plated through	3705 x .042"	4	Mounting area-I/O	4 x .120"	.17	21.95	19.76	17.78	16.00
37621CH	169P84WE	8.50 x 17.0	N/A	A	Drilled only	14,448 x .042"	None	None	None	.53	22.99	22.16	21.33	20.50
106551CH	20 pieces PC board mounting hardware (4 spacers, 8 screws and 8 washers) used with all above boards										1.79	1.65	1.45	1.35

\* PCB material: phenolic

↑ All 0.042" diameter hole boards use terminals T44, T49, and T421 (see below)

## Wire Wrap and Push-In Terminals

For .042" Diameter Holes

Specifications:

- Material: copper alloy
- Prebagged 100 pcs.

**34147CH: Push-In Micro-Klip Terminals**

- Overall length: .36"
- Post size: .032" x .045"

**34155CH: Miniwrap Wiring Terminals**

- Shoulder: .045"
- Two-prong with square tail for wire wrapping

- Overall length: .69"
- Post size: .025" Sq.

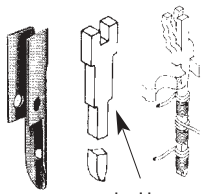
**34163CH: Klipwrap Wiring Terminals**

- Shoulder: .045"
- Three-prong with square tail for wire wrapping

- Overall length: .83"
- Post size: .025" Sq.

Part Number	Product Number	Height Above .062" Board	Length Below .062" Board	100 pc. units	
				1	10
34147CH	T421	.200	.097	\$7.29	\$6.95
34155CH	T44	.065	.530	8.45	6.97
34163CH	T49	.200	.530	11.89	11.19

Lower \$\$\$



## Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

- 1.6mm thickness

Quantity SAVE

Fig. 1

Fig. 2

Fig. 3

Single-Sided							
Part No.	Product No.	Size (L" x W")	Fig.	Wt. (lbs.)	1	10	50
169279CH	PCBS3X6	3.0 x 6.0	3	0.1	\$3.49	\$3.14	\$2.51
169287CH	PCBS6X6	6.0 x 6.0	2	0.2	4.95	4.46	3.56
169295CH	PCBS12X12	12.0 x 12.0	1	0.5	13.49	12.14	10.93
Double-Sided							
Part No.	Product No.	Size (L" x W")	Fig.	Wt. (lbs.)	1	10	50
169308CH	PCBD3X6	3.0 x 6.0	3	0.1	\$5.25	\$4.73	\$4.25
169316CH	PCBD6X6	6.0 x 6.0	2	0.2	7.95	7.16	5.72
169324CH	PCBD12X12	12.0 x 12.0	1	0.7	17.95	16.16	12.92

## PT Series Prototyping Boards

Designed to accommodate any mixture of 0.3" to 0.6" wide IC's with any number of pins, as well as any combination of resistors, capacitors, diodes, transistors, etc.

- 4 power busses that connect to a power jack (recommended P/Ns 101178CH, 101186CH & 265421CH, pg 121)

Part No.	Mfr. Cross Ref. No.	Size	Hole Pads	# Holes x Dia.	# Mntg Holes x Dia.	1	5	10
262511CH	PT-5X37	5"L x 3.7"W	Double-sided	1135 x .036"	4 x .140"	\$24.75	\$22.95	\$21.79
262537CH	PT-6X49	6"L x 4.9"W	Double-sided	1931 x .036"	4 x .140"	32.49	30.89	29.35



262511CH



262537CH



**Surfboards®**

3-MMM 4-MMM

SOT-23 0605, 1206 STRADDLE

Ideal for Prototyping!

207407CH

## Mini Breadboards for Surface Mount Devices

### 6000/6100 Series for Discrete Devices

- Universal large foil pattern areas accept a wide range of device footprints or can be modified to accept new footprints
- 0.1" pin spacing • Height: 0.5"

Part No.	Product No.	Pins	Width	1	10
207423CH	6103	3	0.3"	\$1.39	\$1.19
207407CH	6008	8	0.8"	2.29	1.99
207431CH	6109	9	0.9"	2.39	2.15
207415CH	6010	10	1.0"	2.59	2.29

### 9000 Series for ICs

- Adapt SMD to thru-hole
- Size: 1.20"W x 0.65"H

207378CH/207394CH: 0.1" pin spacing

Part No.	Product No.	1	10
207360CH	9081 (For 8-pin SOIC)	\$1.35	\$1.22
207378CH	9082 (For 8-pin SOIC)	3.55	3.10
207386CH	9161 (For 14/16-pin SOIC)	1.75	1.50
207394CH	9163 (For 14/16-pin SOIC)	5.45	4.79

## Application Specific Adapters

33000 series SURFBOARDS® convert SMD component footprints to SIP format. Compatible with conventional and solderless breadboards & sockets (.100" center pins).

Part No.	Product No.	Accepted Devices	Pins	1	10
207589CH	33205	SOT-23-5/SC59-5	5	\$1.75	\$1.49
207597CH	33206	SOT-23-6/SOT-23-L/SC-59-6/TSOP-6	6	1.95	1.69

## CHIPQUIK SMD 2000 Removal System

### Complete Solder/Desolder Rework Kit

- Removal alloy, solder paste, 3" solder, paste flux, liquid flux remover/cleaner, handi vac, 2 acid brushes, precision tweezers, six 4" x 4" cleaning wipes, 10 swabs, 6 alcohol pads, SMD removal/clean up instructions, stainless steel probe kit & 5' solder wick

Part No.	Description	1	10
208055CH	SMD 2000 removal system	\$99.95	\$94.99

## CHIPQUIK SMD Removal Kit

- Quick and easy to use
- Potential damage to printed circuit boards is eliminated
- 2.5' of CHIPQUIK® material removes 1250-1500 SMD pins
- Uses simple equipment and materials for application & clean-up

Part No.	Description	1	10
141305CH	SMD removal kit	<del>\$21.95</del> \$19.99	\$17.99

**SALE**

## BELLIN DYNAMIC SYSTEMS, INC.

### Surface Mount Proto Boards

Prototyping SMT circuit boards has been tedious and time-consuming because surface mount devices are so small. Now there is an easy, cost-effective and versatile Snap-Apart solution from Bellin Dynamic Systems.

- Quality silk-screened and solder-masked boards
- V-groove scoring between elements for smooth straight edges
- Compatible w/ .100" single or dual row male headers (see pg 110)
- Size: 7.6"L x 5.0"W • Board thickness: 0.031"
- See our website ([www.Jameco.com](http://www.Jameco.com)) for additional specifications

#### Small SMT

Part No.	Prod. No.	Description	1	10
215491CH	B502	160 SMT pattern, SOT/SOIC/TSOP/MSOP/DPAK & more	\$45.95	\$41.35
227344CH	B513	300 SMT pattern, SC90, SOT23-6, 323-6, TSOP, MSOP8, 10+	45.95	41.35

#### SOIC

215520CH	B505	60 SOIC SMT pattern, SOIC 8, 14, 16, 24, 32, 40 & more	\$45.95	\$41.95
227310CH	B510	140 SMT pattern, SOIC 8 to DIP .300" width	45.95	41.35
227328CH	B511	63 SMT pattern, SOIC nrw/wd 8, 14, 16, 18, 20 to DIP .300"	45.95	41.35
227352CH	B514	72 SMT pattern, SOIC narrow 8, 14, 16, 18, 20 to DIP .300"	45.95	41.35
227361CH	B515	30 SMT pattern, SOIC 24, 28, 32 to DIP .600" width	45.95	41.35

#### Fine Pitch Dual Row **NEW**

215503CH	B503	34 SMT pattern, SOIC/QSOP/TSOP/MSOP/TSSOP & more	\$45.95	\$41.35
227281CH	B507	40 SMT pattern, SSOP/TSSOP 16, 20, 32, 40 & more	45.95	41.35
323889CH	B516	54 SMT pattern, 0.65mm TSSOP 14/16/20/28 to DIP 0.300/0.600	62.49	56.25
323900CH	B517	18 SMT pattern, 0.65/0.5/0.4mm TSSOP-48 to DIP 0.600	62.49	56.25

#### Quad

215511CH	B504	25 SMT pattern, QFP32, 44, 48, 52, 54, 64, 70, 80, 100 PLCC18, 20, 28, 32, 44	\$45.95	\$41.35
227336CH	B512	24 SMT pattern, PLCC18, 20, 22, 28, 32, 44, 52, 68, 84 & 100	<del>\$49.95</del> 41.39	33.11
323918CH	B518	2 SMT 0.65mm or 0.8mm pitch, universal QFT adaptor for QFP32/40/48/56/64 (by 8-pin increments to 256 pins)	59.95	53.95
323926CH	B519	2 SMT 0.4mm or 0.5mm pitch, universal QFT adaptor for QFP32/40/48/56/64 (by 8-pin increments to 256 pins)	59.95	53.95
336479CH	B530	8 SMT, 0.65/0.80mm QFP/MLF 8 - 80 pins (even # of pins/side)	43.65	41.45
336487CH	B531	8 SMT, 0.65/0.80mm QFP/MLF 4 - 76 pins (odd # of pins/side)	43.65	41.45
336495CH	B532	8 SMT, 0.40/0.50mm QFP/MLF 8 - 80 pins (even # of pins/side)	43.65	41.45
336508CH	B533	8 SMT, 0.40/0.50mm QFP/MLF 4 - 76 pins (odd # of pins/side)	43.65	41.45

#### PCB Connector (0.062" thick through-hole)

227272CH	B506	45 SMT pattern, USB A, B/1394/RJ11, 12, 45/DB9 PCB conn.	\$45.95	\$41.35
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#### PitchStick™

227299CH	B508	20 SMT pattern, 48 inline pads, metric/rare pitches	\$45.95	\$41.35
227301CH	B509	20 SMT pattern, 48 inline pads, 50 & 25 mil pitches	<del>\$45.95</del> 41.39	31.00

See page 245 for Circuit Board Mounting Hardware and page 144 for Round & Hex Aluminum Spacers and Standoffs.

## ISA Printed Circuit Prototyping Boards

Printed circuit prototyping boards for virtually any application – including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precise standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

- Edge contacts: gold

Part Number	Product Number	Description	Size (Inches) W x L	Terminals (pg 245)			I/O Connector (not included)	Hole Pads	# Holes x Dia.	Power/ Ground Bus	# Mounting Holes x Dia.	Weight (lbs.)	Pricing		
				T44	T49	T421							1	10	25
21531CH	JE417	PC/XT 8-bit	4.2 x 6.50	yes	yes	yes	D-sub 9, 15, 25 & 37	Plated through	2126 x .042"	2	8 x .120"	.12	\$19.95	\$16.99	\$14.65
28206CH	PCB4	PC/XT/AT 16-bit	4.25 x 13.13	yes	yes	yes	D-sub 9, 15 & 25	Plated through	4890 x .042"	2	4 x .120"	.23	24.95	23.69	21.85

## microEngineering Labs LAB-X1 Experimenter's Module Board

The LAB-X1 is a pre-assembled experimenter's platform. It provides an assembled testbed containing most of the circuitry commonly used with PICmicro microcontrollers (MCUs). Many different projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.



- 40-pin ZIF socket for PICmicro MCU (not included, recommend PIC16F877-20/P, P/N 176882CH pg 11)
- Reset button • 16 switch keypad • 3 potentiometers • LED bargraph
- 2 lines x 20 characters LCD module • Speaker • 2 RC servo connectors
- RS232 interface • Socket for RS485 interface (device not included)
- Socket for I2C & SPI serial EEPROM (device not included) • One-year warranty
- Socket for Microwire serial EEPROM (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector • Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector • Size: 5.5" x 5.6"

Requires: AC adapter (below)

Part No.	Description	1	10
169113CH	LAB-X1 Experimenter Board .....	\$199.95	\$189.95
176903CH	LAB-X1 Experimenter Board Kit (unassembled) .....	139.95	132.95
198168CH	LAB-X2 for 28 and 40-pin MCUs  .....	69.05	65.00
198176CH	LAB-X3 for 18-pin MCUs .....	119.95	107.95
176882CH	PIC16F877-20/P microcontroller (pg 11) .....	9.49	8.49
127976CH	AC adapter (details on page 175) .....	4.75	4.29

Blue Part No. = Limited Quantity Available

## microEngineering Labs EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62x, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs. Devices available separately on page 10.

- Simple installation with parallel port (printer) interface
- Command line operation for automated, non-interactive programming • PICmicro Assembler software included

Requires: Two 9V batteries or AC adapter (below)

Part No.	Description	1	10
132679CH	EPIC Plus PICmicro programmer .....	\$59.95	\$53.95
136397CH	8/18/20-pin ZIF adapter .....	34.95	31.95
132610CH	40/28-pin ZIF adapter .....	34.95	31.95
162317CH	AC wall adapter (16VDC/500mA, details on page 176) .....	7.95	6.95
67256CH	6' DB25 cable (details on page 90) .....	6.45	5.79



## Vacuum Tweezers

Pick & place small parts of all kinds: glass slides, coins, optics, SMDs, film, etc.

- Size: 2.9"L x 0.6"W • One-year warranty

Includes: 5 pads sizes 0.14" to 0.4"; 5 straight tips and 2 pieces 45° angle tips

Part No.	Description	1	10
88268CH	Vacuum pick & place kit .....	\$29.95	\$27.95

## 4-Piece Conductive SMD Tweezer Set

- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip • Each is 4.5" long



Part No.	Description	1	10	25
172638CH	4-piece conductive SMD tweezer set .....	\$11.95	\$10.95	\$9.95

## PLCC Surface Mount and DIP IC Extractors

- Size: 4.0"L x 2.0"W (both)

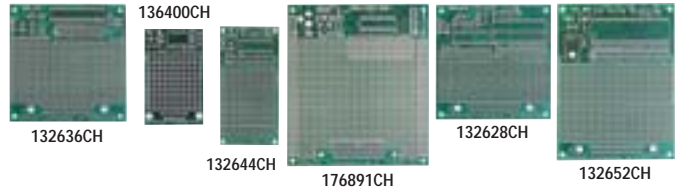
Part No.	Product No.	Description	1	10	100
16766CH	HT103B	PLCC IC extractor .....	\$3.95	\$3.55	\$3.19
16838CH	HT103A	DIP IC extractor .....	1.49	1.25	1.09



## microEngineering Labs "PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes • Large prototyping area
- Solder mask on both sides makes soldering easy • Silkscreen legend

Includes: Documentation sheet with schematic, suggested parts and placement



**PICProto 18, 18L:** For all 18-pin PICs including PIC16C52, 54, 56, 58, 55A, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

Part No.	Description	Size (L" x W")	1	10
132644CH	PICProto 18	3.0 x 1.5	\$9.95	\$8.95
176891CH	PICProto 18L	3.6 x 4.1	19.95	17.95

**PICProto 3:** For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

132636CH	PICProto 3	3.0 x 3.0	\$14.95	\$13.49
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**PICProto 64:** For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

132652CH	PICProto 64	4.0 x 3.0	\$16.95	\$14.95
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**PICProto 8:** For all 8-pin PIC12Cxxx and 12CExxx

136400CH	PICProto 8	2.0 x 1.2	\$8.95	\$7.95
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**PICProto Dual:** For 18-pin PIC16C52, 54, 56, 58, 55A, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, & 84, as well as 28-pin PIC16C55, & 57. Accepts standard 0.6" 28-pin device or 0.3" skinny DIP

132628CH	PICProto Dual 18/28	3.0 x 3.0	<del>\$14.95</del> \$12.95	\$11.66
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## microEngineering Labs PICBasic and PICBasic Pro Compiler

PICBasic converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- Use in DOS or Windows (includes Windows editor/DE software)
- I2C instructions to access external serial EEPROMs
- In-line assembler and call support

### 132661CH: PICBasic Compiler

- Expanded BASIC Stamp I compatible instruction set
- PEEK and POKE instructions to access any register from BASIC
- Serial speeds to 9600 baud
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx, 84, 92x, and PIC16CF8xx microcontrollers
- May use up to 2k of code space



132661CH

### 150543CH: PICBasic Pro Compiler

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2k • Bit, byte, word arrays
- Real If...Then...Else...Endif • Hierarchical expression handling
- Interrupts in BASIC and assembler • BASIC Stamp I and II library
- Built-in LCD support • MPLAB/MPASM/ICE compatibility
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

Part No.	Description	1	10
132661CH	PICBasic compiler .....	\$99.95	\$89.95
150543CH	PICBasic Pro compiler .....	249.95	224.95



**For Our Complete Selection of PIC Microcontrollers**  
See pages 10 – 12



## XELTEK 40-Pin Low-Cost Universal Programmer

- Supports 2500+ devices, including most E(EP)ROM, Series E(EP)ROM & FLASH
- Programs GALs, PEELs, PALCE, Microcontrollers, PIC16Cxx/17Cxx, COP87xx, and PSD3XX
- Tests TTL/CMOS Test, Memory Test, Vector Test, Test Pattern Edit, Auto Identify TTL/CMOS Device
- Features a universal ZIF socket that accepts up to 40 pins
- High-speed programming, cost-effective hardware and flexible software
- Load and save file in binary, Intel (extended) Hex, Motorola S or Tektronics (extended) Hex format. Multiple load, format conversion, relocation etc.
- HEX-ASCII Edit, Fuse Map Edit, Checksum, Swap, Vector Table edit
- Supports Windows® 95/98/ME • Printer Port Interface
- Size: 7.8"L x 5.5"W x 0.8"H • Weight: 4.0 lbs.

**Includes:** Power adapter, parallel cable, user's guide and CD-ROM software

Part No.	Description	1	5
231183CH	SuperPro-Z universal programmer	\$244.95	\$232.69



## 48-Pin Advanced, Low-Cost Universal Programmer

- Provides a 48-pin ZIF socket that accepts any number of pins
- Programmable I/O level supports low voltage devices down to 1.8V
- Device insertion and pin contact check protect chips from damaging
- Supports 5000+ devices including E/EPROM, FLASH, Microcontrollers, PLD & tests standard logic devices & SRAM
- High-speed embedded CPU generates more accurate & reliable algorithm timing
- Supports Windows® 95/98/2000/NT/ME/XP
- Connect to PC via printer port
- Size: 7.8"L x 5.5"W x 1.0"H • Wt.: 4.0 lbs.

**Includes:** Power adapter, parallel cable, user's guide & CD-ROM software

Part No.	Description	1	5
231191CH	SuperPro-280 advanced universal programmer	\$444.95	\$422.69

XELTEK



For Adapters see Below

Speed Comparison			
Device Type	Program (seconds)	Verify (seconds)	Pieces in 8 hour day
28C64B	1	0.8	7578
24C256	3	8	2215
W78E58	13	3	1600
PIC12C508	1	0.8	7578

## XELTEK Ultra-Fast 48-Pin USB & Stand-Alone Universal Programmer

- Fastest low-cost programmer in the market; programs high-density FLASH memory at near theoretical minimum programming time: (Intel 28F320W18 – 1.8 volts 32Mbit at 18 sec.; 13 sec. for programming & 5 sec. for verifying)
- Standard universal 48 pin-drivers support devices down to 1.5 volts; optional 100-pin expander module
- Currently 4,000 devices supported from 100+ manufacturers including memory, MCU, and PLD; 11,000+ by 1/1/2004
- Supports: EPROM, Paged EPROM, Parallel/Serial EEPROM, FPGA Configuration Serial PROM, FLASH Memory (NOR and NAND), BPROM, NOVROM, SPLD, CPLD, EPLD, Firmware HUB, Microcontroller, MCU, Standard Logic
- Reliable programming of low voltage devices down to 1.5 volts
- Three modes of operation are supported: standard PC hosted operation via USB, stand-alone operation for manufacturing or service and built-in terminal mode to operate via an external instrument
- Over-current/over-voltage protection for safety of the chip & programmer hardware
- Microsoft® Windows® 98/ME/NT/2000/XP compatible
- Size: 9.4"L x 5.9"W x 2.0"H • Weight: 5.0 lbs.

**Includes:** 12VDC@2.5A AC adapter, Program CD, USB Cable, user's guide

Part No.	Description	1	5
231221CH	SuperPro-3000 USB universal programmer	\$989.95	\$940.45

## XELTEK SMD Adapters for SuperPro 280/680/3000



231247CH



231255CH



231263CH



231271CH

Part No.	Product No.	Description	1	5
231247CH	A008A	28-pin PLCC adapter	\$84.95	\$80.75
231255CH	A015A	32-pin PLCC adapter	94.95	90.25
231263CH	A244A	44-pin PLCC adapter	109.95	104.45
231271CH	A247A	48-pin TSOP adapter	174.95	166.25

## Fast, Low-Cost Universal Device Programmer

### Parallel Port Interface

- 2000+ device types supported
- Menu driven software
- Programs (E)EPROM, PROM, Serial PROM, PALCE, GAL, flash memory, microcontrollers, ATF
- On-board FPGA for speed; 4X faster than offshore brands
- Auto search device select function supports (E)EPROM and microcontrollers
- Device insertion test identifies improperly inserted device before programming
- Auto programming for production programming
- Read, blank check, program, verify, checksum, data compare, security, auto function

**Includes:** Parallel cable, wall adapter, diskette & manual

**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium® or compatibles, DOS 2.11 or greater, Windows® 95/98/2000/NT/XP; hard disk, 512k RAM & parallel port

Part No.	Description	Socket	1	5
207731CH	CHIPMAX	40-pin ZIF	\$349.95	\$332.95



MADE IN USA

## High-Speed Universal Device Programmer/Tester

### Parallel Port Interface

- Programs Flash memory, PROM, EPROM/EEPROM, Serial (E)EPROM, Bipolar PROM, PAL, PALCE, GAL, NVRAM, PEEL, EPLD, SPLD, CPLD, PIC & Microcontrollers
- 5000+ device types supported
- Hardware diagnostic program examines all 48-pin drivers
- On-board FPGA for speed; 4X faster than offshore brands
- Tests TTL, CMOS, DRAM and Static RAM ICs
- Detects pin locations for poor or damaged contacts
- Current limiting protects hardware circuits from improperly inserted or defective chips
- Supports POF and JEDEC formats
- High-speed device function tests and user creatable test library
- Read, blank check, program, verify, checksum, data compare, security, auto (erase, blank check, program, verify), and option bit program function
- Built-in editor for both buffer date and test vectors • CE/CUL/CSA quality certified

**Includes:** Parallel cable, installation diskette, power cord and manual

**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium®, hard drive, 512k RAM, Windows® 95/98/2000/NT, and parallel port

Part No.	Description	Socket	1	5
207765CH	TOPMAX	48-pin universal ZIF	\$875.95	\$832.95



MADE IN USA



## Versatile, Production Quality Universal Programmers

### Parallel Port Interface

- 3000+ device types supported
- Supports EPROM, flash, microcontroller, Serial (E)EPROM, EPLD, PALCE, GAL, PEEL
- Auto search device select function
- Fast programming speed with IC vendor approved algorithms
- Built-in editor for both buffer date and test vectors
- Supports JEDEC, Intel Hex, Motorola S Records, Binary and ASCII file formats with File LOAD/SAVE command
- Built-in macro commands for programming

**Includes:** 01/02/03 personality modules, parallel cable, wall adapter, disk & manual

**System requirements:** IBM PC, XT, AT, 386, 486, Pentium®, hard disk, 512k RAM, standard parallel port, MS-DOS 2.11 or higher

Part No.	Description	Sockets	1	5
207773CH	MEGAMAX programmer	48-pin ZIF	\$379.95	\$349.95
207781CH	MEGAMAX4G prog.	48-pin ZIF (1)/32-pin ZIF (3)	\$429.95	\$399.95

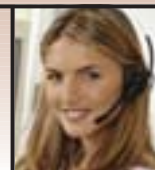


207781CH

MADE IN USA

## Free Technical Support

Our knowledgeable Tech Support department is ready to answer your questions. Just call us!





## 16kB-256MB Universal IC Programmer/Tester

### Parallel Port Interface

Supports over 7,000 devices including EPROM, EEPROM, Serial PROM, FLASH, PLD/ CPLD/ FPGA, MPU/MCU & much more. Most devices in various package types can be programmed with the on-board 40-pin ZIF socket or through an appropriate adapter/ converter. Modular pin drivers program at high speed & provide high reliability & expansion capability.

- Functions of load file, read master, program, verify, auto, ID check, checksum, blank check, erase, secure, protect/unprotect, edit, file transfer, function configuration & self test

**Includes:** External power supply, DB25 M/F cable, manual & software CD-ROM

**System Requirements:** Intel Pentium, 32MB of RAM, parallel port, Windows® 95/98/NT/2000/XP, 5MB free hard disk space, CD-ROM drive

Part No.	Description	1	5
216039CH	ALL-11C2 programmer	\$879.95	\$799.95



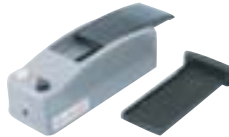
### HI-LO SYSTEMS

## EPROM Eraser

- Erases all UV erasable EPROMs (32-pin)
- Upper & lower erasing chambers hold a total of 16 EPROMs
- One-year warranty
- Conductive foam liner eliminates static build-up
- Size: 8.5"L x 2.8"W x 2.8"H
- Weight: 1.6 lbs.

**Includes:** AC adapter – 9VDC @ 600mA and a timer which turns eraser off at the end of the selected time period – 10 to 60 minutes

Part No.	Description	1	5
121267CH	EPROM eraser	\$159.95	\$143.95



### UVP

## EPROM Erasers and Accessories

**66042CH:** Erases 1 chip in 7 minutes

- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm² • One-year warranty
- Size: 6.8"L x 1.5"W x 2.3"H • Weight: 0.8 lbs.

**Requires:** Four AA batteries (not included), recommend P/N 244515CH (pg 184)

**15712CH:** Erases 1 chip in 15 min. or 8 chips in 21 min.

- Conductive foam liner eliminates static build-up
- Maintains constant exposure distance of 1"
- Built-in safety lock to prevent UV exposure
- Complete with holding tray for 8 chips
- UV intensity: 6.8mW/cm²
- Size: 9.0"L x 3.7"W x 2.6"H • Weight: 2.3 lbs.

Part No.	Description	1	5
66042CH	Portable eraser	\$54.95	\$49.95
15712CH	8-chip eraser	119.95	109.95
34382CH	Lamp for 15712CH	39.95	29.95
13864CH	Foam (12" x 24" x 0.25")	9.29	8.35



## Flash Writer/Programmer w/ USB Interface

- Programs 8-bit FLASH serial ICs via USB cable on Windows® 9x/2000/XP
- High speed: Only 22 seconds to blank check, program, and verify MXIC MX29F040
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronix
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports Flash EPROM, EPROM & EEPROM

**Includes:** USB cable, 12V @ 500mA adapter, CD-ROM software and manual

Part No.	Description	1	5
225947CH	Leaper 3D	\$199.95	\$179.95



## Universal Programmer – Pocket Size & Battery Powered

### Parallel Port Interface

A unique ASIC pin driver was designed specifically for this latest generation programmer, enabling the first true universal input/output capability. Along with basic functions the software permits setting specially designated functions for any selected device.

- Supports 5200+ devices: 8-bit and 16-bit EPROM, EEPROM, FLASH EPROM, Serial EEPROMs, all Microcontrollers, GAL/PAL/CE without adapters
- Support for ultra-low voltage devices down to 1.3V
- High speed data transfer: 27C256 read/verify = 2 seconds; program = 8 seconds
- Three separately adjustable voltages for all 40-pins
- Fully compatible with Windows® 95/98/ME/NT/2000/XP
- Integrated editor's many features allow user to edit device data, which can be loaded or saved in INTEL HEX, Motorola S or binary format
- Operates on AC power adapter or 6 NiMH batteries
- Size: 4.5"L x 3.1"W x 1.3"H • Weight: 0.5 lbs.

**Includes:** Printer port data cable, power adapter & CD

**System requirements:** PC with Pentium® CPU

Part No.	Description	1	5
226309CH	GALEP-4	\$369.95	\$351.49



## Universal EPROM/Flash Programmer w/ USB Interface

- Supports low voltage components up to 2.5V; user selectable verify Vcc with one or two-pass verify voltage
- High speed: 30 sec. to process 16Mbits memory
- Auto detect device pin insertion and contact check
- Select device brand & number by prompt and convenient cross search, FLASH memory auto detection
- Supports EPROMs, EEPROMs, FLASH EPROMs, Serial E/EPROMs, NV RAMs, Microcontrollers, DSPs and PLDs • Supports file formats JEDEC, binary, Intel 80/86 HEX, Motorola HEX, Tektronic HEX

**Includes:** USB cable, 12V@1.5A power adapter and CD-ROM software

**System requirements:** Pentium® II or higher, 32MB RAM minimum, 30MB hard disk space, Windows® 98/ME/2000 operating system

Part No.	Description	1	5
225939CH	Leaper 48	\$575.95	\$529.95



## 512k E(E)PROM/Flash Programmer w/ USB Interface

Compact, portable, and lightweight stand-alone E(E)PROM flash programmer. Also interfaces with your PC through the USB port.

- Programs EPROMs, EEPROMs, Flash EPROMs & more
- 2 sockets for master/slave operation
- Stand-alone mode uses two 9V batteries
- IC parameters are adjustable such as programming algorithm, Vpp voltage, and pulse width
- Supports file formats binary and machine code, INTEL HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP • Size: 6.3"L x 4.3"W x 1.8"H

**Includes:** USB cable, 12VDC@500mA power adapter and CD-ROM

Part No.	Description	1	5
220636CH	Leaper-3C	\$275.95	\$249.95



## Order Anytime, Day or Night

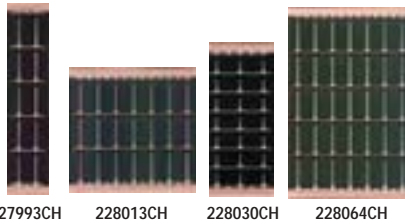
Our friendly sales department will take your order 24x7x365 by phone, fax, web or email.



## PowerFilm. Flexible Thin Film Solar Modules

### Wireless Electronics Series

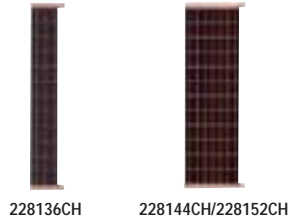
The Wireless Electronics Series offers a new opportunity to solve the old problem of limited power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin, and durable. With their ultra-film profile, they are easily integrated with devices for solar recharging or direct powering. Specifically developed to recharge AA, AAA, plus 6 and 12 volt batteries.



Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T)		Pricing		
				Inches	mm	1	10	100
227985CH	SP3-37	3.0	22	2.5 x 1.5 x .01	64 x 37 x 0.2	\$3.89	\$3.49	\$3.19
227993CH	TX 3-25	3.0	25	4.5 x 1.0 x .01	114 x 25 x 0.2	2.89	2.45	1.99
171061CH	MP3-37	3.0	50	4.5 x 1.5 x .01	114 x 37 x 0.2	5.89	5.29	4.99
228013CH	MPT3.6-75	3.6	50	2.9 x 3.0 x .01	74 x 75 x 0.2	8.89	7.99	7.19
228030CH	SP4.2-37	4.2	22	3.3 x 1.5 x .01	84 x 37 x 0.2	5.89	5.29	4.79
228048CH	MPT4.8-75	4.8	50	3.7 x 3.0 x .01	97 x 75 x 0.2	11.89	10.69	9.59
228056CH	MPT4.8-150	4.8	100	3.7 x 5.9 x .01	94 x 150 x 0.2	22.89	20.59	18.49
228064CH	MPT6-75	6.0	50	4.5 x 3.0 x .01	114 x 75 x 0.2	13.89	12.49	11.29
228072CH	MPT6-150	6.0	100	4.5 x 5.9 x .01	114 x 150 x 0.2	27.89	24.99	22.49
228099CH	MP7.2-150	7.2	200	10.0 x 5.9 x .02	253 x 150 x 0.6	39.89	37.99	34.99
228101CH	MPT15-75	15.4	50	10.0 x 3.0 x .02	253 x 75 x 0.6	26.89	24.29	21.99
228110CH	MPT15-150	15.4	100	10.0 x 5.9 x .02	253 x 150 x 0.6	44.89	42.99	39.99

### Remote Control Aircraft Series

Designed to be easily integrated with remote control aircraft or anywhere weight is critical. These modules are very lightweight. Soldered can be applied from the back of the module via the extended copper tape, and have an extra edge seal for protection. We offer versions with and without a strong pressure-sensitive adhesive for simple bonding.

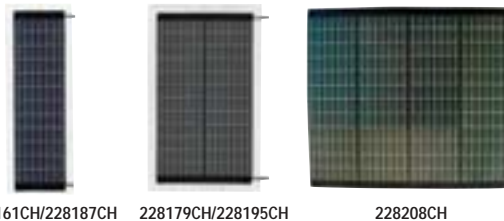


Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T)		Pricing		
				Inches	mm	1	10	100
228136CH	RC7.2-37PSA*	7.2	50	10.6 x 2.2 x .01	270 x 55 x 0.2	\$19.39	\$17.49	\$15.79
228144CH	RC7.2-75	7.2	100	10.6 x 3.5 x .01	270 x 90 x 0.2	29.89	26.99	24.29
228152CH	RC7.2-75PSA*	7.2	100	10.6 x 3.5 x .01	270 x 90 x 0.2	32.89	29.79	26.79

\*PSA = Pressure Sensitive Adhesive

### WeatherPro Series

The right choice for permanent outdoor applications that are directly exposed to the elements. These modules feature rugged construction, a UV-stabilized surface, extra edge seal for weather protection, and tin-coated copper leads that extend from the module.



Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T)		Pricing		
				Inches	mm	1	10	100
228161CH	P7.2-75	7.2	100	10.3 x 3.9 x .04	270 x 100 x 1.1	\$39.89	\$36.99	\$33.99
228179CH	P7.2-150	7.2	200	10.3 x 6.9 x .04	270 x 175 x 1.1	59.89	54.99	49.99
228187CH	PT15-75	15.4	50	10.3 x 3.9 x .04	270 x 100 x 1.1	39.89	36.99	33.99
228195CH	PT15-150	15.4	100	10.3 x 6.9 x .04	270 x 175 x 1.1	59.89	56.99	52.99
228208CH	PT15-300	15.4	200	10.3 x 12.8 x .04	270 x 325 x 1.1	99.89	94.99	89.99

## Solar Energy Project Kit

Learn about the renewable energy available with solar power. Experimenter kit demonstrates the power of the solar cell to run an electric motor. Contains motor connected to solar cell, propeller, optical illusion spirals, and informative booklet.

• Difficulty level: beginner



Part No.	Description	1	10
215204CH	Solar energy project kit	<del>\$8.79</del> \$7.15	\$6.49

## Forever Keychain Light

Miniature rechargeable light lasts for years and you'll never need to change a battery or bulb. Energized by solar cells, it is entirely self-contained. A squeeze turns on the LED emitting yellow light. Perfect for keychain or gift.

• Size: 2"Dia. x 0.5"Thick



Part No.	Description	1	10
215212CH	Forever keychain light	<del>\$16.19</del> \$14.15	\$12.85

## Solar Cell Grab Bag Assortment

About 40 irregular pieces in various sizes, shapes, and current ratings at 0.5VDC. Connect in series to increase voltage or connect in parallel to increase current.

**SALE**



Part No.	Description	1	10
215255CH	Solar cell assortment	<del>\$9.89</del> \$7.65	\$6.95

☺ Blue Part No. = Limited Quantity Available

## Miniature Glass Solar Panel



- Open circuit voltage: 16.5VDC in full sunlight
- Operating temperature range: -5° to +40°C
- Operating volt.: 12VDC @ 3mA • Size: 3.6"L x 1.0"W

Part No.	Description	1	10
171985CH	Glass solar panel	\$7.89	\$7.19

☺ Blue Part No. = Limited Quantity Available

## Solar Photon Racer Kit

Build your own solar racer and tap into the power of the sun! This easy-to-assemble kit comes with everything you need, including a high-powered 1Va 500mA, ultra lightweight encapsulated solar cell and high-amp/low-voltage motor for maximum torque and speedy acceleration. Sleek transparent plastic body, made from recycled pop bottles, looks great as is, or add your own custom paint job. The Photon can travel 10 feet in three seconds on a smooth, flat surface, when exposed to full sun.

- Difficulty level: beginner • Size: 8.5"L x 3.8"W x 2.0"H

Part No.	Description	1	10
214738CH	Photon-P (painted)	\$24.95	\$19.95
215183CH	Photon-1 (unpainted)	<del>\$19.15</del> 16.45	14.95

☺ Blue Part No. = Limited Quantity Available

## Solar Motor

**Lower \$\$\$**

- Runs at 80mA no load
- Low stall torque: 25-48 g-cm
- Shaft diameter: 2mm
- Operates on 0.5-3.0V @ 200mA start-up
- High RPM: 2500-5000 @ maximum efficiency
- Motor size: 1.0"Dia. x 1.5"L



Part No.	Description	1	10
215263CH	Solar motor	<del>\$2.89</del> \$2.25	\$2.05

☺ Blue Part No. = Limited Quantity Available

## Mini-Panel Solar Cells

**Ready to Use! No Soldering**

Encapsulated mini-panels utilize solar cells similar to those that power our satellites in space, yet they are safe and simple to use. Mini-panels allow for handling without the normal breakage and cell damage associated with fragile solar cells. 6" red /black lead wires attached. Modules may be connected to create different outputs.

- Size: 3.8"L x 2.5"W • Connection: lead



Part No.	Prod. No.	VDC @ mA	Size (LxW)	1	10
200205CH	SOL2	0.5 @ 800	2.6" x 3.7"	\$7.95	\$7.15
200221CH	SOL4	2.0 @ 200	3.0" x 3.7"	8.99	7.99
215319CH	4-3.0-100	3.0 @ 100	3.8" x 2.5"	14.29	12.89
215327CH	4-6.0-50	6.0 @ 50	3.8" x 2.5"	15.79	14.39

## Eye-Catching Solar Powered Retail Display Device

**SALE**



See Jameco.com for Data Sheet.

Add eye-catching motion to your in-store advertising with this solar clip-on motion display. Just clip on to an existing fluorescent light blub, add your own signage, turn the lights on and your in-store advertising sign comes to life. Long-life solar motor turns your sign counter clockwise. No batteries or AC power to worry about. No need to worry about tripping your motion sensing alarm systems because you can simply switch off your fluorescent light and the movement stops.

Part No.	Description	Size	1	10
215221CH	Clip-on motion retail display ...		\$16.89	\$15.35

## Portable Solar Battery Charger

Charge your batteries with free solar power. Inexpensive, easy and safe to use—completely self-contained unit, no moving parts or cords. Uses satellite type solar cells that produce the highest power to weight ratio. Compact and lightweight, you can carry this charger with you anywhere. Re-energizes carbon-zinc, alkaline, nickel-cadmium (NiCd), and nickel-metal-hydride (NiMH) batteries.

Includes: Battery adapter to charge, AA, C, and D type batteries.

Part No.	Description	Size	1	10
215239CH	Solar pocket charger	3.6"L x 3.1"W x 1.5"D	\$22.79	\$20.69

## Solar Button Cell Battery Charger

A convenient and safe way to revitalize worn down button cell batteries used in hearing aids, cameras, calculators, remote controls, clocks, alarms and more. LED indicator lets you know when the battery is being charged. Charges nickel-cadmium (NiCd), nickel-metal-hydride (NiMH), alkaline, mercury, and most zinc air (1.2V-1.5V) batteries.

Part No.	Description	Size	1	10
215247CH	Solar button cell charger	2.3"L x 1.4"W	\$11.65	\$10.59

## Motor and Gear Case

Combination motor and gear train in plastic case.

- Operates on 0.5-3.0V @ 0.5V
- Runs at 20mA
- Strong torque @ 3V: 41 g-cm
- Shaft diameter: 2mm
- 6 RPM

Part No.	Description	Size	1	10
215271CH	Motor and gear case	3.0"L x 2.0"W x 1.5"D	\$12.45	\$11.29

# Lasers

## 650nm Line and Dot Laser Diodes

143845CH/173243CH:

- Focus adjustable w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3-5V
- Size: 3.3"L x 0.9"Dia.
- One-year warranty

Class IIIa Laser Product



143845CH: Line laser module

- Laser line width: 1mm
- Laser fan angle: 60°

173243CH: Cross hair laser diode module

- Laser fan angle: 60°
- Size: 3.0"L x 0.9"D
- Female 2.1mm power connector

143837CH: Module regulated power supply

- Output: 5VDC @ 100mA
- Short circuit protection
- Input voltage: 95-125VAC or 190-250VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H
- Weight: 0.6 lbs.

143853CH: Laser module mount

- Built to hold laser diode on target
- X-Y tilt, 0 movement
- Tightening screw for tilt adjustment



Part No.	Description	1	10
143845CH	Line laser diode module ....	\$114.95	\$103.95
173243CH	Cross hair laser diode mod. ....	89.95	80.95
143837CH	Regulated power supply .....	19.95	17.95
143853CH	Laser diode module mount ....	49.95	39.95

## Laser Diode Module

- Operates on 3VDC @ <5mW
- 650nm wavelength
- Beam diameter: 5 x 8mm
- Working distance: over 50 meters/yards (daylight), 200 meters/yards (dark)
- Size: 0.9"L x 0.3"Dia.
- One-year warranty

Class IIIa Laser Product



Part No.	Description	Price
310519CH	Laser module, brass .....	\$44.95

## Glass-Lens Red Laser Diode and Line Generator

133292CH: Laser Diode

This lens design uses 3-element glass to collect almost all the power from the laser diode resulting in a brighter spot than many typical laser applications.

- Operating voltage: 4.0-6.0VDC (recommend P/N 112070CH, pg 174)
- Beam size at 7m: oval - 5mm x 8mm
- Maximum output: 4mW
- Wavelength: 660nm
- Beam divergence: 0.2mrad
- Green LED indicator
- Module size: 2.0"L x 0.5"W

134148CH: 60° Line Generating Lens

- Adjustable focus range: 50 cm to ∞
- Back focal length: 1.5mm
- Focal length: 8.0mm
- Fan angle: 60°
- Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Length at 1 meter distance: 1.7 m

Part No.	Description	1	10	25
133292CH	Glass laser diode ....	\$44.95	\$39.95	\$35.95
134148CH	60° lens .....	12.95	11.49	9.95

**SALE**

## Green Laser Pointer

Even the sleepiest audience will sit up and salute when you whip out a laser pointer that's green, not red... and so bright, you could be standing nearly half a mile away. Using a wavelength closely matched to the highest sensitivity of the human eye and built with cutting-edge crystal technology, this laser projects a green beam so powerful you can see it against a clear sky at night. You won't believe how bright it is. • 90-day mfg. warranty

*Ultra-intense green beam is much brighter goes much farther and is easier on the eyes than standard red lasers.*

Includes: Metal gift box, clip and 2 AAA batteries

Part No.	Description	Output Wavelength	Output Power	Price
223731CH	Green laser pointer	532nm	<5mW	\$152.25

## Laser Diode and Driver

182932CH: Laser Diode

- Optical output power: <5mW maximum
- Operating current: 30mA
- Operating voltage: 2.6V maximum
- Lasting wavelength: 650nm typical
- 5.6mm packaging size
- Beam divergence of 11 degrees from center line maximum

161736CH: Laser driver w/ regulator

- Input voltage: 2.6-6VDC
- Input current: 40mA

Part No.	Description	1	10	25
182932CH	650nm laser diode ...	\$11.95	\$10.79	\$9.69
161736CH	Laser driver .....	7.95	6.95	6.25

ALPEC

## Laser Pointer Pens

- Range up to 500 yards
- 670nm red laser

Includes: 2 AAA batteries

Part No.	Description	Size (L" x Dia")	1	10
153605CH	Black pen	5.2 x 0.4	\$19.95	\$17.95
127749CH	Silver brass	5.4 x 0.4	21.95	19.95





Fig. 1



Fig. 9



Fig. 2



Fig. 10



Fig. 3



Fig. 11



Fig. 4



Fig. 12



Fig. 5



Fig. 13



Fig. 6

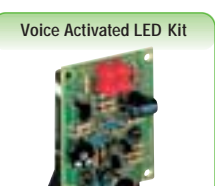


Fig. 14



Fig. 7



Fig. 15

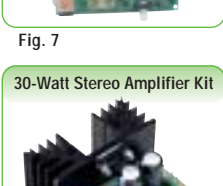


Fig. 8



Fig. 16

NEW

### Microprocessor Starter Kit



Imagine Tools

This Microprocessor Starter Kit is designed to work with several different forms of applications via system control: commands and feedback, data acquisition, and custom hardware setups specific to user requirements. Whether you are an embedded systems expert, or an electronics novice, Imagine Tools offers an educational community devoted to bringing as much value to a kit purchase as possible by offering free downloadable products, application ideas, and support. The microprocessor starter kit is ideal for hobbyists, enthusiasts, and entrepreneurs seeking to create a killer product and/or application. Kit includes RCM3610 module with Rabbit 300A microprocessor, starter board, software CD, hardware, and power supply.

- 256k FLASH/128k SRAM
- 33 digital I/O ports
- 4 serial ports



Part No.	Description	Input Voltage	Current Draw	Price
354992CH	Microprocessor starter kit	24-40VAC, 7-40VDC	43mA typ.@12V, 16mA typ.@40V	\$94.05

Part No.	Mfr. No.	Description	Fig.	No. of Pieces	Exp. Level	Dimensions (L"xW"xH")	Wt. (lbs.)	Pricing
								1 10

#### Educational Kits

307707CH	652111	Detector radio kit	—	29	BEG	10.9 x 6.9 x 1.6	1.0	\$22.95	\$19.99
307723CH	628710	Fuel cell car and experiment kit	—	39	INT	8.5 x 4.4 x 6.5	5.0	\$139.95	\$125.95
307731CH	626112	Power house kit	1	59	INT	15.6 x 9.9 x 9	6.0	\$139.95	\$125.95
285624CH	SR-TGI	Telegraph kit	2	—	—	2.7 x 2.7 x 4	—	\$49.95	\$47.49

#### Timer Modules and Electronic Dice Kits

147871CH	I-1	1 sec. to 3 min. timer module	—	—	—	3.0 x 1.7 x 1.2	—	\$19.95	\$17.95
147846CH	I-10	3 sec. to 1 min. off cyclic timer module	—	—	—	3.0 x 1.7 x 1.2	—	\$22.49	\$20.29
200352CH	K3400	Dual electronic dice kit	3	85	INT	3.0 x 2.8	0.5	\$18.95	\$16.95

#### Audio Transmitters, Amplifier, Sound Generator and Detection Kits

151204CH	AA-1	Super snooper big ear audio amplifier kit	4	17	INT	1.8 x 1.0 x 0.6	—	\$10.95	\$9.95
151239CH	FMST-100	FM stereo transmitter mini kit	5	37	INT	2.7 x 2.0	—	\$29.95	\$26.95
117604CH	K1771	FM transmitter Kit	6	26	INT	1.8 x 2.8	—	\$10.19	\$9.99
211772CH	MK118	FM radio kit	—	65	INT	4.8 x 3.3	—	\$21.95	\$19.95
125161CH	6063KT	One chip AM radio kit	7	39	INT	4.0 x 1.3 x 0.5	—	\$13.95	\$12.95
147643CH	K4304	10 LED mono VU meter kit	—	36	INT	2.7 x 1.4	0.3	\$16.99	\$15.99
117612CH	K1803	Universal mono pre-amplifier kit	—	17	INT	1.2 x 1.8	—	\$8.95	\$7.95
125111CH	6027KT	1-watt amplifier kit	—	9	INT	1.2 x 1.2 x 0.9	—	\$6.29	\$5.59
127255CH	K4001	7-watt amplifier kit	—	22	INT	2.2 x 1.4	—	\$13.95	\$12.49
136207CH	8405KT	18-watt bridged mono amplifier kit	—	17	BEG	2.2 x 1.1	—	\$15.59	\$13.95
147838CH	E-11	20-watt RMS amplifier module	—	—	—	2.8 x 2.8 x 1.6	—	\$24.95	\$22.49
129138CH	K4003	30-watt stereo power amplifier	8	38	INT	2.8 x 2.0	—	\$29.95	\$26.95
127562CH	K4401	Sound generator kit	9	61	INT	2.8 x 2.8	—	\$29.95	\$26.95
125137CH	DK31	Siren kit	—	20	BEG	2.0 x 0.8 x 0.5	—	\$7.95	\$7.15
125170CH	6101KT	Train sound generator kit	10	11	BEG	1.1 x 0.6 x 0.2	—	\$9.49	\$8.59
215394CH	MK140	Karaoke kit	11	59	INT	3.9 x 3.3 x 1.0	—	\$15.95	\$14.35
313912CH	B110	Stereo tone control kit	—	—	—	4.2 x 1.5	—	\$19.95	\$18.95
313921CH	B009	Antenna amplifier kit	—	—	—	2.2 x 2.2	—	\$12.95	\$12.30

#### Clock Kits

319281CH	K8009	Multifunction clock kit	12	—	—	9.9 x 3.1	—	\$99.95	\$94.50
319290CH	B8009	Case for multifunction clock kit	—	—	—	12.4 x 3.2 x 1.0	—	\$24.95	\$23.70

#### Optical Communications

177092CH	IR-2	Infrared transmitter/receiver kit	—	26	BEG	1.4 x 1.2	0.1	\$24.95	\$22.49
169914CH	IF-LMH	Fiber optic lab kit	13	—	—	—	0.7	\$46.89	\$42.29

#### Speech Recording and Recognition Kits

124871CH	DVM-58D	Digital voice module	—	—	—	5.8 x 2.9 x 0.6	—	\$65.95	\$59.95
147571CH	MK103	Voice activated LED kit	14	33	INT	2.5 x 1.6 x 1.4	0.1	\$9.95	\$8.95
225971CH	66-0101	Voice direct II stand-alone speech recognition kit	—	—	—	—	0.4	\$59.95	\$53.95

Blue Part No. = Limited Quantity Available

#### Holiday Kits

211781CH	MK130	3D flashing Christmas tree kit	15	36	INT	3.1 x 3.5 x 4.0	—	\$10.95	\$9.95
211764CH	MK116	Santa sleigh and reindeer kit	—	201	EXP	5.7 x 3.2	—	\$22.95	\$20.65
236072CH	MK117	Deluxe Christmas tree kit	—	208	INT	3.2 x 5.6	—	\$19.99	\$17.99
147635CH	MK100	Flashing Christmas tree kit	—	30	BEG	4.0 x 2.4	—	\$6.29	\$5.97
236081CH	MK145	Flashing pumpkin kit	16	71	INT	1.3 x 4.0 x 3.2	—	\$9.99	\$8.99

NEW

### Ethernet Starter Kit



Imagine Tools

This starter kit is ideal for hobbyists, students and inventors who want to learn about C programming, TCP/IP programming and interfacing electronic devices with microprocessors. Fun and useful application projects take you step-by-step through hard-ware and software development. Hardware includes a RCM3700 Rabbit Microprocessor Core Module plus prototyping and breadboards (6.5"L x 2.2"W), 12VDC@1A power supply, serial cable, 2 Ethernet cables, 8Ω 400mW speaker, wiring kit, 10kΩ thermistor, 0.1mF capacitor, 10kΩ potentiometer, headers, and standoffs. Software includes Dynamic C lite, libraries and samples, as well as royalty free TCP/IP protocol stack. Mix and match project hardware and software to create a new application such as a WAV file player, DC and stepper motor controller, GPS clock, and much more.



Part No.	Description	Input Voltage	Current Draw	Price
355004CH	Hovercraft kit	24-28VAC, 7-40VDC	43mA typ.@12V, 16mA typ.@40V	\$141.55

Part No.	Mfr. No.	Description	Fig.	No. of Pieces	Exp. Level	Dimensions (L" x W" x H")	Wt. (lbs.)	Pricing
								1 10

#### Robotic and Computer Control Kits

199603CH	769K	Rocket robot expert kit	17	96	EXP	—	1.0	\$21.95	\$19.55
157366CH	007	Robotic arm kit (unassembled)	18	109	EXP	—	4.5	\$74.95	\$67.49
159345CH	007/IBM	Robotic controller software (DOS 4.2 & up, Windows 95/98)	—	—	—	—	1.0	\$84.95	\$76.49
140821CH	972K	Spider kit	19	107	EXP	12 x 7 x 3.5	1.2	\$59.95	\$53.95
200328CH	MK127	Running micro bug kit	20	26	INT	4.0 x 2.4	0.2	\$18.95	\$16.95
200336CH	MK129	Crawling micro bug kit	21	29	INT	4.0 x 2.4	0.2	\$21.45	\$19.35
128928CH	K8000	Computer control interface kit	—	301	EXP	9.3 x 5.3	1.7	\$139.95	\$125.95
128910CH	K6714	Universal relay controller card kit	—	64	EXP	8.3 x 5.9	1.8	\$59.95	\$53.95
120678CH	K6501	Remote control by phone kit	—	116	EXP	4.1 x 5.1	0.7	\$69.49	\$62.59
285641CH	561-4562	Hovercraft kit	22	25	BEG	—	0.8	\$21.79	\$20.69
239476CH	K2633	Relay card kit (req. 9VDC@300mA power supply, 133891CH, pg 175)	—	29	INT	3.0 x 2.7	0.4	\$19.99	\$18.99

#### Power Supply and Motor Kits

117621CH	K1823	1 amp power supply kit	—	12	INT	2.1 x 2.1	0.3	\$12.95	\$11.65
20626CH	JE215	Dual adj. regulated power supply kit	—	48	INT	5.1 x 3.5 x 2.0	2.1	\$22.95	\$20.49
120539CH	K8004	DC to pulse width modulator kit	—	40	EXP	3.3 x 1.9 x 1.8	0.5	\$22.95	\$20.49
127829CH	DK67	DC motor speed control kit	—	35	INT	3.6 x 2.3 x 1.2	0.2	\$19.95	\$17.95
139109CH	DK109	Unipolar stepper motor driver kit	—	29	INT	2.6 x 1.9 x 1.0	0.1	\$29.95	\$26.95
181833CH	VM-1	DC voltage monitor kit	—	46	BEG	2.7 x 1.3	0.2	\$8.95	\$7.95
263628CH	K8005	Stepper motor controller card and motor kit	—	102	INT	3.9 x 3.5	0.3	\$59.95	\$56.95

#### Battery Charger Kits

314034CH	B079	Universal NiCd charger kit	23	—	—	2.2 x 2.2	—	\$15.95	\$15.15
239521CH	K8012	Lead acid battery charger kit	—	—	—	3.8 x 5.5 x 1.6	—	\$39.95	\$37.95
314211CH	M149	Solar cell battery charger	—	—	—	2.5 x 2.0 x 1.1	—	\$16.95	\$16.05

#### Electronic Lock Kits

127554CH	K6400	Code lock kit	24	67	INT	1.7 x 1.8	0.5	\$29.95	\$26.95
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#### Distance and Light Kits

129120CH	K3502	Parking radar kit	25	55	INT	4.9 x 1.9	0.5	\$39.95	\$34.95
117639CH	K5300	Stroboscope kit	—	19	EXP	3.5 x 2.6	0.5	\$15.49	\$14.99
131684CH	K8017	3-channel light organ kit	26	80	INT	6.7 x 5.6 x 1.7	1.2	\$54.95	\$49.95
157964CH	LED1007	IR red illuminator kit	—	41	BEG	2" Dia.	0.1	\$16.95	\$15.29
125090CH	DK20	Ultrasonic alarm kit	—	49	INT	2.8 x 2.0 x 0.9	0.1	\$29.95	\$26.95
134105CH	OEM-ARN2	Voltage output distance sensor module	27	—	—	2.8 x 1.8 x 0.9	0.2	\$159.95	\$143.95
151482CH	RS-232	RS-232 output distance sensor module	—	—	—	—	1.0	\$179.95	\$161.95
200310CH	MK124	Scrolling message kit	—	76	INT	3.5 x 2.6 x 1.8	0.2	\$24.95	\$22.45
147555CH	MK101	Flashing LED sweetheart kit	—	46	INT	2.5 x 2.4 x 1.2	0.1	\$11.95	\$10.95
147580CH	MK102	Flashing LED kit	—	23	INT	1.3 x 1.4 x 0.6	0.1	\$7.95	\$7.19
136223CH	DK-79C	Light sensitive relay kit	—	20	INT	2.4 x 1.3 x 1.0	0.1	\$12.95	\$11.65
285595CH	SR-LBI	Build your own lightbulb kit	—	5	BEG	5.5 x 2.7 x 6.6	0.4	\$54.95	\$52.25
285616CH	SR-LBI-R	Refurbishment pack for lightbulb kit	—	—	BEG	—	—	\$14.49	\$13.75
313875CH	B224	Laser light show kit	28	—	—	—	—	\$22.95	\$21.80
286969CH	LFB-10	Flashing LED American flag	29	—	—	1.2 x 0.7	—	\$3.99	\$3.79

#### Test and Measurement Kits

20685CH	JE2206	Function generator kit	—	21	INT	4.1 x 1.5	0.1	\$24.95	\$22.95
129091CH	K7102	Metal detector kit	30	22	INT	2.1 x 2.1	0.4	\$11.95	\$10.95
157315CH	MK108	Water leak alarm kit	—	7	BEG	2.8 x 1.8	0.1	\$10.95	\$9.95
313736CH	B051	Gas/spirits sensor kit	—	—	—	—	—	\$29.95	\$28.45
313832CH	B229	Clean air measuring kit	31	—	—	4.0 x 1.5	—	\$29.95	\$28.45
313841CH	B137	Ion generator kit	—	—	—	2.0 x 1.7	—	\$19.95	\$18.95
313904CH	B160	LED VU meter kit	32	—	—	3.7 x 3.7	—	\$24.95	\$23.70





Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16

NEW

Microprocessor Starter Kit



Imagine Tools

This Microprocessor Starter Kit is designed to work with several different forms of applications via system control: commands and feedback, data acquisition, and custom hardware setups specific to user requirements. Whether you are an embedded systems expert, or an electronics novice, Imagine Tools offers an educational community devoted to bringing as much value to a kit purchase as possible by offering free downloadable products, application ideas, and support. The microprocessor starter kit is ideal for hobbyists, enthusiasts, and entrepreneurs seeking to create a killer product and/or application. Kit includes RCM3610 module with Rabbit 300A microprocessor, starter board, software CD, hardware, and power supply.

• 256k FLASH/128k SRAM

• 33 digital I/O ports

• 4 serial ports



Part No.	Description	Input Voltage	Current Draw	Price
354992CH	Microprocessor starter kit	24-40VAC, 7-40VDC	43mA typ.@12V, 16mA typ.@40V	\$94.05

Part No.	Mfr. No.	Description	Fig.	No. of Pieces	Exp. Level	Dimensions (L"xW"xH")	Wt. (lbs.)	Pricing
307707CH	652111	Detector radio kit	—	29	BEG	10.9 x 6.9 x 1.6	1.0	\$22.95 \$19.99
307723CH	628710	Fuel cell car and experiment kit	—	39	INT	8.5 x 4.4 x 6.5	5.0	\$139.95 \$125.95
307731CH	626112	Power house kit	1	59	INT	15.6 x 9.9 x 9	6.0	\$139.95 \$125.95
285624CH	SR-TGI	Telegraph kit	2	—	—	2.7 x 2.7 x 4	—	\$49.95 \$47.49

Timer Modules and Electronic Dice Kits

147871CH	I-1	1 sec. to 3 min. timer module	—	—	—	3.0 x 1.7 x 1.2	—	\$19.95 \$17.95
147846CH	I-10	3 sec. to 1 min. off cyclic timer module	—	—	—	3.0 x 1.7 x 1.2	—	\$22.49 \$20.29
200352CH	K3400	Dual electronic dice kit	3	85	INT	3.0 x 2.8	0.5	\$18.95 \$16.95

Audio Transmitters, Amplifier, Sound Generator and Detection Kits

151204CH	AA-1	Super snooper big ear audio amplifier kit	4	17	INT	1.8 x 1.0 x 0.6	—	\$10.95 \$9.95
151239CH	FMST-100	FM stereo transmitter mini kit	5	37	INT	2.7 x 2.0	—	\$29.95 \$26.95
117604CH	K1771	FM transmitter kit	6	26	INT	1.8 x 2.8	—	\$10.19 \$9.99
211772CH	MK118	FM radio kit	—	65	INT	4.8 x 3.3	—	\$21.95 \$19.95
125161CH	6063KT	One chip AM radio kit	7	39	INT	4.0 x 1.3 x 0.5	—	\$13.95 \$12.95
147643CH	K4304	10 LED mono VU meter kit	—	36	INT	2.7 x 1.4	0.3	\$16.99 \$15.99
117612CH	K1803	Universal mono pre-amplifier kit	—	17	INT	1.2 x 1.8	—	\$8.95 \$7.95
125111CH	6027KT	1-watt amplifier kit	—	9	INT	1.2 x 1.2 x 0.9	—	\$6.29 \$5.99
127255CH	K4001	7-watt amplifier kit	—	22	INT	2.2 x 1.4	—	\$13.95 \$12.49
136207CH	8405KT	18-watt bridged mono amplifier kit	—	17	BEG	2.2 x 1.1	—	\$15.59 \$13.95
147838CH	E-11	20-watt RMS amplifier module	—	—	—	2.8 x 2.8 x 1.6	—	\$24.95 \$22.49
129138CH	K4003	30-watt stereo power amplifier	8	38	INT	2.8 x 2.0	—	\$29.95 \$26.95
127562CH	K4401	Sound generator kit	9	61	INT	2.8 x 2.8	—	\$29.95 \$26.95
125137CH	DK31	Siren kit	—	20	BEG	2.0 x 0.8 x 0.5	—	\$7.95 \$7.15
125170CH	6101KT	Train sound generator kit	10	11	BEG	1.1 x 0.6 x 0.2	—	\$9.49 \$8.59
215394CH	MK140	Karaoke kit	11	59	INT	3.9 x 3.3 x 1.0	—	\$15.95 \$14.35
313912CH	B110	Stereo tone control kit	—	—	—	4.2 x 1.5	—	\$19.95 \$18.95
313921CH	B009	Antenna amplifier kit	—	—	—	2.2 x 2.2	—	\$12.95 \$12.30

Clock Kits

319281CH	K8009	Multifunction clock kit	12	—	—	9.9 x 3.1	—	\$99.95 \$94.50
319290CH	B8009	Case for multifunction clock kit	—	—	—	12.4 x 3.2 x 1.0	—	\$24.95 \$23.70

Optical Communications

177092CH	IR-2	Infrared transmitter/receiver kit	—	26	BEG	1.4 x 1.2	0.1	\$24.95 \$22.49
169914CH	IF-LMH	Fiber optic lab kit	13	—	—	—	0.7	\$46.89 \$42.29

Speech Recording and Recognition Kits

124871CH	DVM-58D	Digital voice module	—	—	—	5.8 x 2.9 x 0.6	—	\$65.95 \$59.95
147571CH	MK103	Voice activated LED kit	14	33	INT	2.5 x 1.6 x 1.4	0.1	\$9.95 \$8.95
225971CH	66-0101	Voice direct II stand-alone speech recognition kit	—	—	—	—	0.4	\$59.95 \$53.95

Blue Part No. = Limited Quantity Available

Holiday Kits

211781CH	MK130	3D flashing Christmas tree kit	15	36	INT	3.1 x 3.5 x 4.0	—	\$10.95 \$9.95
211764CH	MK116	Santa sleigh and reindeer kit	—	201	EXP	5.7 x 3.2	—	\$22.95 \$20.65
236072CH	MK117	Deluxe Christmas tree kit	—	208	INT	3.2 x 5.6	—	\$19.99 \$17.99
147635CH	MK100	Flashing Christmas tree kit	—	30	BEG	4.0 x 2.4	—	\$6.29 \$5.97
236081CH	MK145	Flashing pumpkin kit	16	71	INT	1.3 x 4.0 x 3.2	—	\$9.99 \$8.99

NEW

Ethernet Starter Kit



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Part No.	Description	Input Voltage	Current Draw	Price
355004CH	Hovercraft kit	24-28VAC, 7-40VDC	43mA typ.@12V, 16mA typ.@40V	\$141.55

Part No.	Mfr. No.	Description	Fig.	No. of Pieces	Exp. Level	Dimensions (L" x W" x H")	Wt. (lbs.)	Pricing
199603CH	769K	Rockit robot expert kit	17	96	EXP	—	1.0	\$21.95 \$19.55
157366CH	007	Robotic arm kit (unassembled)	18	109	EXP	—	4.5	\$74.95 \$67.49
159345CH	007/IBM	Robotic controller software (DOS 4.2 & up, Windows 95/98)	—	—	—	—	1.0	\$84.95 \$76.49
140821CH	972K	Spider kit	19	107	EXP	12 x 7 x 3.5	1.2	\$59.95 \$53.95
200328CH	MK127	Running micro bug kit	20	26	INT	4.0 x 2.4	0.2	\$18.95 \$16.95
200336CH	MK129	Crawling micro bug kit	21	29	INT	4.0 x 2.4	0.2	\$21.45 \$19.35
128928CH	K8000	Computer control interface kit	—	301	EXP	9.3 x 5.3	1.7	\$139.95 \$125.95
128910CH	K6714	Universal relay controller card kit	—	64	EXP	8.3 x 5.9	1.8	\$59.95 \$53.95
120678CH	K6501	Remote control by phone kit	—	116	EXP	4.1 x 5.1	0.7	\$69.49 \$62.59
285641CH	561-4562	Hovercraft kit	22	25	BEG	—	0.8	\$21.79 \$20.69
239476CH	K2633	Relay card kit (req. 9VDC@300mA power supply, 133891CH, pg 175)	—	29	INT	3.0 x 2.7	0.4	\$19.99 \$18.99

Robotic and Computer Control Kits

199603CH	769K	Rockit robot expert kit	17	96	EXP	—	1.0	\$21.95 \$19.55
157366CH	007	Robotic arm kit (unassembled)	18	109	EXP	—	4.5	\$74.95 \$67.49
159345CH	007/IBM	Robotic controller software (DOS 4.2 & up, Windows 95/98)	—	—	—	—	1.0	\$84.95 \$76.49
140821CH	972K	Spider kit	19	107	EXP	12 x 7 x 3.5	1.2	\$59.95 \$53.95
200328CH	MK127	Running micro bug kit	20	26	INT	4.0 x 2.4	0.2	\$18.95 \$16.95
200336CH	MK129	Crawling micro bug kit	21	29	INT	4.0 x 2.4	0.2	\$21.45 \$19.35
128928CH	K8000	Computer control interface kit	—	301	EXP	9.3 x 5.3	1.7	\$139.95 \$125.95
128910CH	K6714	Universal relay controller card kit	—	64	EXP	8.3 x 5.9	1.8	\$59.95 \$53.95
120678CH	K6501	Remote control by phone kit	—	116	EXP	4.1 x 5.1	0.7	\$69.49 \$62.59
285641CH	561-4562	Hovercraft kit	22	25	BEG	—	0.8	\$21.79 \$20.69
239476CH	K2633	Relay card kit (req. 9VDC@300mA power supply, 133891CH, pg 175)	—	29	INT	3.0 x 2.7	0.4	\$19.99 \$18.99

Power Supply and Motor Kits

117621CH	K1823	1 amp power supply kit	—	12	INT	2.1 x 2.1	0.3	\$12.95 \$11.65
20626CH	JE215	Dual adj. regulated power supply kit	—	48	INT	5.1 x 3.5 x 2.0	2.1	\$22.95 \$20.49
120539CH	K8004	DC to pulse width modulator kit	—	40	EXP	3.3 x 1.9 x 1.8	0.5	\$22.95 \$20.49
127829CH	DK67	DC motor speed control kit	—	35	INT	3.6 x 2.3 x 1.2	0.2	\$19.95 \$17.95
139109CH	DK109	Unipolar stepper motor driver kit	—	29	INT	2.6 x 1.9 x 1.0	0.1	\$29.95 \$26.95
181833CH	VM-1	DC voltage monitor kit	—	46	BEG	2.7 x 1.3	0.2	\$8.95 \$7.95
263628CH	K8005	Stepper motor controller card and motor kit	—	102	INT	3.9 x 3.5	0.3	\$59.95 \$56.95

Battery Charger Kits

314034CH	B079	Universal NiCd charger kit	23	—	—	2.2 x 2.2	—	\$15.95 \$15.15
239521CH	K8012	Lead acid battery charger kit	—	—	—	3.8 x 5.5 x 1.6	—	\$39.95 \$37.95
314211CH	M149	Solar cell battery charger	—	—	—	2.5 x 2.0 x 1.1	—	\$16.95 \$16.05

Electronic Lock Kits

127554CH	K6400	Code lock kit	24	67	INT	1.7 x 1.8	0.5	\$29.95 \$26.95
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Distance and Light Kits

129120CH	K3502	Parking radar kit	25	55	INT	4.9 x 1.9	0.5	\$39.95 \$34.95
117639CH	K5300	Stroboscope kit	—	19	EXP	3.5 x 2.6	0.5	\$15.49 \$14.99
131684CH	K8017	3-channel light organ kit	26	80	INT	6.7 x 5.6 x 1.7	1.2	\$54.95 \$49.95
157964CH	LED1007	IR red illuminator kit	—	41	BEG	2" Dia.	0.1	\$16.95 \$15.29
125090CH	DK20	Ultrasonic alarm kit	—	49	INT	2.8 x 2.0 x 0.9	0.1	\$29.95 \$26.95
134105CH	OEM-ARN2	Voltage output distance sensor module	27	—	—	2.8 x 1.8 x 0.9	0.2	\$159.95 \$143.95
151482CH	RS-232	RS-232 output distance sensor module	—	—	—	—	1.0	\$179.95 \$161.95
200310CH	MK124	Scrolling message kit	—	76	INT	3.5 x 2.6 x 1.8	0.2	\$24.95 \$22.45
147555CH	MK101	Flashing LED sweetheart kit	—	46	INT	2.5 x 2.4 x 1.2	0.1	\$11.95 \$10.95
147580CH	MK102	Flashing LED kit	—	23	INT	1.3 x 1.4 x 0.6	0.1	\$7.95 \$7.19
136223CH	DK-79C	Light sensitive relay kit	—	20	INT	2.4 x 1.3 x 1.0	0.1	\$12.95 \$11.65
285595CH	SR-LBI	Build your own lightbulb kit	—	5	BEG	5.5 x 2.7 x 6.6	0.4	\$54.95 \$52.25
285616CH	SR-LBI-R	Refurbishment pack for lightbulb kit	—	—	BEG	—	—	\$14.49 \$13.75
313875CH	B224	Laser light show kit	28	—	—	—	—	\$22.95 \$21.80
286969CH	LFB-10	Flashing LED American flag	29	—	—	1.2 x 0.7	—	\$3.99 \$3.79

Test and Measurement Kits

20685CH	JE2206	Function generator kit	—	21	INT	4.1 x 1.5	0.1	\$24.95 \$22.95
129091CH	K7102	Metal detector kit	30	22	INT	2.1 x 2.1	0.4	\$11.95 \$10.95
157315CH	MK108	Water leak alarm kit	—	7	BEG	2.8 x 1.8	0.1	\$10.95 \$9.95
313736CH	B051	Gas/spirits sensor kit	—	—	—	—	—	\$29.95 \$28.45
313832CH	B229	Clean air measuring kit	31	—	—	4.0 x 1.5	—	\$29.95 \$28.45
313841CH	B137	Ion generator kit	—	—	—	2.0 x 1.7	—	\$19.95 \$18.95
313904CH	B160	LED VU meter kit	32	—	—	3.7 x 3.7	—	\$24.95 \$23.70



PARALLAX

## Robotic Controller Kits

### Board of Education Full Kit

The new Board of Education Revision C carrier board has two major changes from the Revision B. The jumper near the servo connector will select either Vdd (5 V) or Vin (unregulated input voltage) to power the servos. The three-position power switch is either off (0), power to everything but servo connectors (1) or power to everything (2).

- Mechanically interlocked power supply to prevent dual connection of wall pack and 9V battery
- DB9 connector for programming and serial I/O
- Female 10-pin dual row connector for optional AppMods • P0 – P15 I/O pins

**Includes:** Board of Education carrier board, BASIC Stamp 2 module, pluggable wires, serial cable, CD-ROM and power supply

Part No.	Parallax No.	1	10
283101CH	28102	\$118.95	\$96.99

### Boe-Bot Full Kit

Now with Robotics text v2.0! **Lower \$\$\$**  
The new text includes 41 activities for the Boe-Bot and PBASIC 2.5 source code support. The Boe-Bot's flexibility stems from the fact that it's a rolling Board of Education. The Board of Education and Basic Stamp may be removed to be used as your platform for the other Stamps in Class curriculum. The robot may be programmed to follow a line, solve a maze, follow light, or communicate with another robot. Requires 4AA batteries (not included).

Part No.	Parallax No.	1	10
282933CH	28132	\$198.99	\$189.00

## Lowest Price Guarantee



Found a product at a lower print advertised price? We'll beat that price by 10% right down to our cost!

**It's That Simple!**

## Advanced Toddler Robot Kit

Walking robots have mechanical and software interdependencies that require in-depth examples and explanation. The Advanced Robotics text is an introduction to the Toddler robot's basic movements. Students using the Toddler robot will learn advanced embedded programming with BASIC, efficient code development, sensor feedback, and general control. Because of the number of possible movements, we consider the Toddler to be appropriate for those aged 14 and above.

**Includes:** 155-page Advanced Robotics text in the Stamps in Class style and the 351-page BASIC Stamp Manual

Part No.	Parallax No.	1	10
282837CH	27311	\$248.95	\$236.49



## BS2 Educational Starter Kit

This complete "Getting Started" kit is enhanced to include the What's a Microcontroller? (WAM) curriculum. Includes all of the BASIC Stamp hardware required to complete the activities and challenges. With this latest edition of the kit, you will receive the What's a Microcontroller? parts and text making this combination a bona fide "Getting Started" kit. With the WAM kit you'll get your feet wet through a series of over 40 activities designed to provide you with the best possible introduction to the world of BASIC Stamps.

**Includes:** BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

Part No.	Parallax No.	1	10
282829CH	27207	\$158.95	\$152.95



## Robot Builder's Source Book

**McGraw-Hill** Everything you need to find and acquire common and uncommon robotic parts and supplies. Jameco and over 2500 mail order suppliers and other sources, including local and international businesses all cross-referenced and categorized to make your search quick and easy. (711 pages, 2003)

Part No.	Description	Price
213461CH	Robot Builder's Source Book	\$16.95

Blue Part No. = Limited Quantity Available



**SALE**

## Robot Builder's Bonanza

**TAB Publishing** This fascinating guide offers a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (753 pages, 2001)

Part No.	Description	Price
137171CH	Robot Builder's Bonanza	\$17.95

Blue Part No. = Limited Quantity Available



**SALE**

## Stamp Works Kit

This all-in-one kit takes you beyond theory, into a well-written collection of 32 experiments that will teach you first class BASIC Stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

**Includes:** Manual, BASIC Stamp Experiment Board, BS2-IC, 2x16 parallel LCD with custom cable, digital multimeter with 2 probes, wire cutter/stripper/pliers, three 100' rolls 22 AWG wire, screwdriver kit, photoresistor, 555 timer, 8-bit serial-to-parallel and 8-bit parallel chips, Dallas Semiconductor 1620 digital thermometer and real-time clock with 32.768MHz crystal, National Semiconductor ADC0831 8-bit A/D converter, Maxim 7219 8-digit LED display driver, National Semiconductor LM358 op-amp, stepper motor, servo, power supply, resistor assortment, capacitors, serial cable, CD-ROM and plastic box for parts

Part No.	Parallax No.	Price
184946CH	27297	\$348.95



## BS2P Professional Starter Kit

Provides the engineer with all the parts required to get started with the BSP2 microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BSP2.

**Includes:** Manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678KHz crystal, 24LC32 serial EEPROM, DS1822 thermometer, (3) 4.7K resistors, jumper wires

Part No.	Parallax No.	1	10
202323CH	27235 kit	\$207.95	\$187.95
282984CH	45187 BS2P40 demo board	88.95	84.95



See page 257 for an index of Electronics-Industry books offered in this catalog.



## Basic Analog and Digital Parts & Text V1.2

Covers the essentials of 8-bit A/D & D/A conversion using a BASIC Stamp. Introduces PBASIC commands for A/D conversion with resistor/capacitor circuits, interfacing an ADC0831 8-bit A/D converter, scaling analog outputs into meaningful digital values, analyzing time-varying signals and using PWM as analog output.



## Industrial Control Parts & Text



An educational tutorial on process control with the BASIC Stamp. Methods of process control are demonstrated in detail using a simple desktop heater system. A fan provides an external disturbance to the closed-loop system.

Part No.	Parallax No.	1	10
282950CH	28155	\$43.95	\$39.45

Part No.	Parallax No.	1	10
176575CH	28156	\$58.49	\$55.59

## Microcontroller Application Cookbook Vol. 1 & 2

Vol. 1 is a wide-ranging collection of 113 interface circuits designed around the BASIC Stamp 2. For somebody getting started with microcontrollers. Discusses timing diagrams, interfacing, A/D conversion and how to control a high-voltage circuit with a solid-state relay.



Vol. 2 is a new collection of 154 interface circuits designed around the BASIC Stamp 2.

Part No.	Parallax No.	1	10
282925CH	28113	\$58.95	\$55.95

## Giant Robotic Ball-Bearing Servo

Extremely powerful! Perfect for large robotic projects where power is a must.

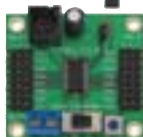


- Torque: 161 oz.-in.
- Power supply: 4.8-6 volts
- Speed: 19 seconds to 60°
- Can be operated by P/N 151001CH, pg 124

Part No.	Description	1	10
166351CH	Giant robotic servo	\$49.95	\$44.95

## Servo Controller

Controls up to 16 servos and may be networked together so that two servo controllers can control 32 servos using a single I/O line.



- 2400 to 384k baud serial port
- 63 ramp rates
- 16-bit PWM timers
- RS-232 serial protocol

Part No.	Parallax No.	Description	1	10
282896CH	28023	Servos controller	\$38.95	\$36.95

## High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.



- Supply voltage: 4.8-6 volts
- Speed: 16 seconds to 60°
- Torque: 49 oz.-in. @ 4.8V
- Can be operated by P/N 151001CH, pg 124
- 0.8"W x 1.4"D x 1.6"H

Part No.	Description	1	10
157067CH	Robotic servo	\$19.95	\$17.95

## Flex Sensor

- Maximum resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Nominal resistance: 10kΩ
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering



Part No.	Mfr. No.	Description	1	10
150551CH	FLX-01	Flex sensor	\$12.95	\$11.65

## MONDO•TRONICS Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. • Length: 1 meter

*How it works...* Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract, raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.



### 141348CH: Muscle Wires® Book & Deluxe Kit

- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® and Project Book
- 3 meters of wire

Includes: Crimps and instructions

Part No.	Description	Wire Dia. (microns)	Linear Resistance (ohm/m)	Typical Current (mA)	Deform Weight* (grams)	Recovery Weight* (grams)	Typical Rate**	Pricing	
								1	10
141321CH	100LT	100	150	180	28	150	33	\$15.95	\$14.49
141874CH	150LT	150	50	400	62	330	20	16.95	15.29
160055CH	375LT	375	8	2750	393	2000	4	19.95	17.95

\* Multiply by 0.0098 to get force in Newtons \*\* Cycles per minute, in still air, at 20° Centigrade

Part No.	Description	1	10
141348CH	Muscle Wires® kit	\$56.95	\$52.95



## PRECISION NAVIGATION, INC. Vector 2X Compass Module

- Pin selectable BCD or binary output format (compatible with Motorola SPI and National Microwire)
- Raw uncalibrated magnetometer output optional
- Master or slave capability for data clock generation
- 2° accuracy, 1° resolution
- 3-wire serial output format
- Hard iron calibration
- 5Hz sampling rate

Requires: Power supply 5V @ 10mA (recommend P/N 112070CH, pg 174)



Part No.	Description	1	10
126703CH	Vector 2X module	\$49.95	\$44.95



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## Infrared Remote-Control Receiver Modules



- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared
- Single unit module which incorporates a PIN diode and a receiving preamplifier IC
- Excellent mechanical strength and electrical stability
- 940nm wavelength
- Size: 0.6"L x 0.6"W x 0.5"H

Part No.	Description	Voltage Input	1	10
220628CH	38.0kHz	4.5VDC @ 1.4mA ..	\$2.99	\$2.69
165008CH	40.0kHz	5VDC @ 5mA .....	2.99	2.49
176541CH	56.8kHz	5VDC @ 2mA .....	1.69	1.27

## Crossbow Accelerometer Evaluation Boards



### Dual Axis

Evaluation board for the ADXL202, dual axis, 2g accelerometer.

177308CH: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

Part No.	Product No.	Description	1	10
177287CH	ADXL202EB	Dual axis	\$59.95	\$53.95
177308CH	ADXL202EB-232	w/ RS-232	159.95	144.95

## Crossbow Accelerometer Triple Axis Accelerometer

- Dynamic range and excellent frequency response
- Current: 24mA
- Axis: 3
- Shielded cable: 2'L pigtail
- Acceleration range: ±4g
- Size: 1.9"L x 1.0"W x 0.8"H



Requires: 5VDC power supply, not included (recommend P/N 164101CH, pg 174)

Part No.	Description	1	10
141575CH	CXL04LP3	\$339.95	\$319.95
141583CH	Digital interface card	312.95	299.95

## 26-Pitch Press-Fit Gears and Gear Set

- Works with DC motors with 0.156" and 0.078" shaft diameter
- Heavy-duty plastic construction
- Diametral pitch: 26
- Material: polyethylene resin

**131801CH:** 20-piece gear set includes 2 each of all the gears and bushings shown below.

\* Prepackaged: please order in increments of 10 or 100

Part No.	Description	Bore Size	PitchDia.	Works w/ Shaft Dia.	Outer Gear Dia.	1	10	100
162069CH	10 teeth gear	0.149"	0.378"	0.156 (5/32)"	0.455"	\$.89	\$.69	\$.55
162077CH	20 teeth gear	0.149"	0.756"	0.156 (5/32)"	0.842"	.89	.69	.49
162085CH	30 teeth gear	0.149"	1.142"	0.156 (5/32)"	1.225"	.89	.69	.49
162093CH	40 teeth gear	0.149"	1.540"	0.156 (5/32)"	1.623"	.89	.69	.49
162106CH	50 teeth gear	0.149"	1.900"	0.156 (5/32)"	1.985"	.89	.69	.49
162392CH	Bushing	0.075"	—	0.078 (5/64)"	—	*	.25	.22
Part No.	Description					1	10	50
131801CH	Gear set - 20 pieces of all the gears and bushings shown above					\$7.99	\$7.29	\$6.49

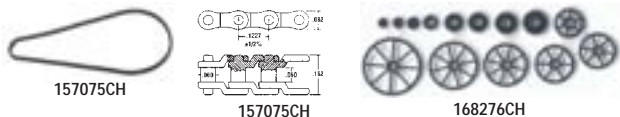


## 16-Pitch Sprocket Set and Chain

- Operates in high humidity and corrosive environments
- Chain links can easily be added or removed to adjust total length
- Chain tension load: 2.0 lbs.

**168276CH:** 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth with 1/8" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth with 1/4" bore size

Part No.	Description	1	10	25
157075CH	Drive chain (12" long)	\$9.95	\$8.95	\$7.95
168276CH	Sprocket set - 14 pieces (see description above)	29.49	26.49	23.89



## Hub and 48-Pitch Gear Set

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

**168284CH:** 12-piece gear set includes 1 each of the following: 10 teeth with 1/8" bore size; 14 and 16 teeth with 1/4" bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth with 1/2" bore size

Part No.	Description	1	10	25
157104CH	1/4" bore aluminum mounting hub w/ set screws	\$4.95	\$4.49	\$3.95
168284CH	Gear set - 12 pieces (see description above)	39.95	34.95	31.95



## Selectable Gear Box Kit

Great 35-piece kit for learning about gear ratios or to add a gear box to your robot project. See-through case has gear ratios from 6.8:1 to 807.93:1.

- Difficulty level: intermediate

Part No.	Description	Dimensions	Price
145509CH	Selectable gear box kit with 3V motor	2.5"L x 1.1"W x 1.5"H	\$15.95

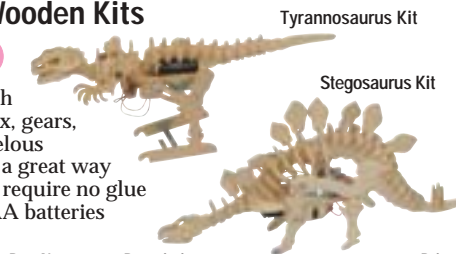


## Motorized Wooden Kits

*Kits, ideal for your child.*

Your child will love building these kits and watching them walk. These kits come with "kid friendly" pre-punched wooden parts, gearbox, gears, shafts, switch, motor, and battery holder. A marvelous educational science project for ages 8 and up, and a great way to learn about gears and transmissions. These kits require no glue or soldering, just a few simple hand tools, and 2 AA batteries (not included; see pages 183-186 for batteries). Your kids will be building these kits in no time.

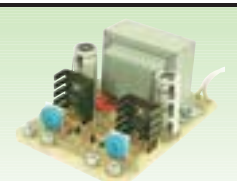
- Gear driven transmission
- Requires: knife, screw driver, and long-nose pliers



Part No.	Description	Price
242915CH	Stegosaurus kit	\$11.95
242923CH	Tyrannosaurus kit	11.95

## More Kits!

See pages 252-253 for our extensive selection of educational, audio, optical, speech, robotic, power, battery, electronic, distance and light, and test and measurement kits.



Dual Adjustable Regulated Power Supply Kit (20626CH)

## Spider Couplers

162288CH (Coupler)

- Used with motors
- 1 set screw per hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- Parts sold individually

Quantity SAVE



Part No.	Description	1	10	50
162288CH	.125" (3.18 mm) ID hub	\$1.35	\$1.15	\$.86
161998CH	.197" (5.00 mm) ID hub	1.09	.89	.59
162270CH	.250" (6.35 mm) ID hub	1.35	1.19	1.09
162000CH	Rubber spider	1.29	1.15	1.05

## Climax Spider Shaft Couplers

Quantity SAVE

**209285CH/106606CH:**

- 1 set screw per hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"

**138288CH:**

- 2 set screws (10-32 x 1/8")
- Size: 0.75"L x 0.5"OD

Part No.	Description	1	10	100
209285CH	.125" ID shaft hub	\$.85	\$.65	\$.49
106606CH	.250" ID shaft hub	.75	.69	.59
138288CH	.250" ID sleeve coupler	4.49	4.05	3.65



## Gears and Shafts Kit

Bag of gears, shafts and accessories. Great for science projects. All parts fit 2mm shaft motors.

Part No.	Description	1	10
215298CH	Gears and shafts kit	\$5.89	\$5.29



## Mobile Robotic Car Design Book

**McGraw Hill** - This book describes a complete detail that should be clear enough for a hobbyist of how to build a robotic car, provides detailed photographs, schematics, list of vendors for parts, and software code for the processor and the digital signal processor with an explanation of what the code does and why. Printed circuit board files are free, and can be downloaded from [www.books.mcgrawhill.com/authors/KachrooMellodge](http://www.books.mcgrawhill.com/authors/KachrooMellodge). (278 pages, 2005)



Part No.	Description	Price
313592CH	Mobile Robotic Car Design	\$23.95

## Velleman Quartz Clock Mechanism

Build your own clock or replace the clock mechanism of a damaged clock with this quartz clock mechanism from Velleman.

- Includes: 1 x 1.5AA battery
- Dimensions: 2.2"Sq x 0.6"Thick

Part No.	Description	Price
239661CH	Quartz clock mechanism	\$3.49

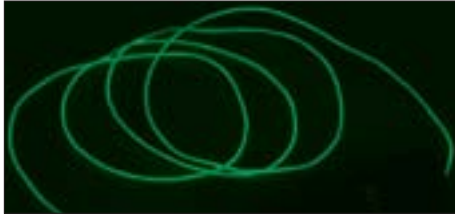


## Over 99% of Our Products Are In Stock

Place your order by 6PM EST for same business day shipment.



## Electroluminescence Wires



Imagine the possibilities of transforming ordinary objects with high tech visual effects. Wrap these fluorescent wires around any objects such as musical instruments, models, science projects, and presentation boards. Super charge your projects with brilliant colors.

- Powered by 2 AA batteries
- Length: 4.5'

velleman

Part No.	Product No.	Color	1	10	25
263484CH	NWRB15	Blue .....	\$21.95	\$20.95	\$19.95
263505CH	NWRG15	Green .....	21.95	20.95	19.95
263492CH	NWRR15	Red .....	21.95	20.95	19.95

## Flatwire Tape





*Run home improvement and entertainment flatwire cables anywhere, invisibly!*

This invisible innovation is a dream come true for do-it-yourselfers and home technology contractors! Just measure the length, peel the self-adhesive backing, and run these super-flat wires along walls, floors, under carpeting or behind molding! On finished walls, just smooth on a little spackle and paint for an amazing wiring installation that's typically only a few hundredths of an inch thick.

**NEW**



### Specifications With White Backing

Part No.		Wire	Gauge	Width (in.)	Thick (in.)	Max Curr.	Typical Applications	Length (feet)	Price
263353CH		8	16	0.75	0.25	13.0A	High wattage audio & lighting	25	\$34.85
263311CH								100	126.85
263396CH		4	18	1.25	0.011	10.0A	Indoor or outdoor pairs for two speakers	25	33.59
263388CH								100	121.95
263417CH		2	75Ω	0.5	0.05	N/A	75Ω video coax for cable TV, video & CCTV	25	31.95
263409CH								100	115.69
263450CH		8	24	0.75	0.05	3.7A	4 pair UTP for 100 base, TX, Cat5 or phone	25	46.95
263433CH								100	163.45

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## E-Mail Desktop Microphone

*Add your voice to e-mail messages, with the touch of a button!*

This revolutionary desktop device will change the way you use e-mail! Simply press a button and speak into the omnidirectional condenser mic, and the technology does the rest.

In seconds, your recording is packaged and attached to a ready-to-send e-mail message, seamlessly and hassle-free. Included software facilitates file-management, and an optional add-on will even make an MP3 file from your words!



Part No.	Description	Price
315070CH	E-mail desktop microphone	\$41.95

**NEW**

## Digital USB Voice Recorder

*Pocket "secretary" captures all your great ideas.*

Once you begin to use this sleek, feature & accessory-packed tape-less recorder, you'll wonder how you ever got along without it. Record up to 396 addressable messages totaling 2 hours (SP) or 4 hours (LP) (model 285499CH) or 9 hours (SP) or 18 hours (LP) (model 237198CH). They can be meetings, phone conversations, and audio from external devices, all in flawless digital clarity. USB connectivity quickly downloads your recordings to your PC.

Included accessories: earphone, external (meeting) microphone, telephone adapter, audio cable, PC software, USB cable, and hand strap.



*Includes all the accessories needed!*

Part No.	Description	Price
285499CH	Digital USB voice recorder, 2-4 hrs	\$89.95
237198CH	Digital USB voice recorder, 9-18 hrs	129.95

**NEW**

## Clip-on Mouse Pad

*Organize and maximize your workstation.*

Tired of trying to work without enough space? Free up your desk space with this convenient clip-on mouse platform. No drilling required - clamps on securely to your desk or work-station without damaging the desk. This unit also stores completely below your desk so you don't have to see it when not in use. Includes a cord clip to keep mouse cords tangle-free and in position.



Part No.	Description	Price
249105CH	Clip-on mouse pad	\$6.99

**NEW**

## Computer Accessories

See pages 190-205 for our selection of Computer Products.

## 30-Day Money Back Guarantee

If you're not completely satisfied with your purchase, simply return the product within 30 days for a refund or exchange.



Details on page 258.



# Ordering Information

## PAYMENT OPTIONS

### Credit Card/Check Cards

We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

### Check or Money Order

You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

### Open Account

It is easy to open an account with Jameco. Contact us for obtaining open account status.

### C.O.D.

Personal checks are accepted. Please add \$7.50 per C.O.D. order. Include the name and address of your bank and your account number.

### International Orders

All foreign orders must be prepaid with a credit card (see approved credit cards above), wire transfer, traveler's check, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment.

E-mail: [international@Jameco.com](mailto:international@Jameco.com).

## SERVICES

### 30-Day Money Back Guarantee

If for any reason you are not completely satisfied with your purchase, simply return the product, in its original packaging, within 30 days for a refund, credit or exchange. Parts returned due to customer ordering error may be subject to a restock fee. Call our customer service department at 1-800-536-4316 or visit [www.Jameco.com](http://www.Jameco.com) to request an RMA#. It should appear clearly on the outside of the box. Returns without an RMA# will not be accepted, and no freight collect packages will be accepted. A completed Jameco customer service form, located on the back of the packing slip, must be included with your return. We're sorry, but books, kits, software, grab bags and special orders cannot be returned. Special orders consist of products sold at an OEM quantity discount or products not listed in the Jameco catalog.

### Jameco Warranty

Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from the original purchase date unless otherwise stated in writing by Jameco. If Jameco receives the product considered to be defective within this warranty period and the product is determined to be defective, Jameco will, at its sole option and discretion, either repair or replace the product. The foregoing is your sole and exclusive remedy and states Jameco's entire liability arising out of this warranty. [However, Jameco will transfer to customer whatever transferable warranties and indemnities Jameco receives from the manufacturer of the products. Any claims arising from such manufacturer's warranties shall be the sole responsibility of the manufacturer and not of Jameco.] Moreover, Jameco's limited warranty is void if the damage or defect has resulted from improper customer assembly, failure by customer to follow instruction, product modification, negligent or improper operation, accident, abuse or misapplication. Products returned to Jameco pursuant to this warranty must be returned to Jameco prepaid.

### No Other Warranties

The limited warranty above is exclusive and in lieu of all other conditions and warranties for the products and documentation. Jameco makes no other conditions or warranties, express, implied, statutory or otherwise, and expressly disclaims all other conditions and warranties, including but not limited to, implied conditions or warranties of merchantability, fitness for a particular purpose, and non-infringement of the products.

### Limitation of Liability

Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause. Products sold by Jameco are not authorized for use as critical components in life support devices or systems.

## 5 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day!

1-800-831-4242

International orders,

call 1-650-592-8097

Toll-Free

FAX:

US/Canada: 1-800-237-6948

Brazil: 000-817-455-6119

Columbia: 980-9-136748

Indonesia: 1-803-015-237-6948

Mexico: 001-800-593-1449

New Zealand: 080-044-0470

Other Countries: 1-650-592-2503

Online:

<http://www.Jameco.com>

On-line catalog! Our complete offering of over 16,000 products searchable on the Jameco website!

E-mail your order to:

[sales@Jameco.com](mailto:sales@Jameco.com) or fill out the order form (next page) and mail it to us.

Mail:



In-Person:

Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will call office hours are 8:00 a.m. – 5:00 p.m. Monday – Friday.



## CONTACT INFORMATION

The following services are available at 1-650-592-8097 Monday – Friday from 6:30 a.m. – 5:00 p.m. PST or via e-mail:

- International Sales ([international@Jameco.com](mailto:international@Jameco.com))
- Customer Service ([custservice@Jameco.com](mailto:custservice@Jameco.com))
- Credit Department ([credit@Jameco.com](mailto:credit@Jameco.com))
- Technical Support ([tech@Jameco.com](mailto:tech@Jameco.com))

### Toll-Free Hotline!

Please call us at 1-800-831-4242.

### A Nuestros Clientes en

**La Republica Mexicana:** Si usted requiere tratar en Espanol y adquirir nuestros productos facturados L.A.B. Cd. De Mexico (libres de Aduana) y enviados al interior del pais via Estafeta, contacte con nuestro Representante y Distribuidor exclusivo; **Proyeccion Electronica de Mexico, S.A. de C.V.**

a: General E-mail: [info@proyel.com](mailto:info@proyel.com)

Quote E-mail: [jmc@proyel.com](mailto:jmc@proyel.com)

Phone/Fax: 01-(55) 5273-5029

### Direccion:

Benjamin Franklin No. 166 Desp. 1  
Col. Escandon Deleg. Miguel Hidalgo  
C.P. 11800 Mexico, D.F.

**Los demas paises de Latinoamerica:** Ya pronto tendremos servicio en su Region. Si usted tiene alguna duda o comentario respecto a los servicios de Jameco, contacte con la empresa arriba mencionada en la Ciudad de Mexico, ellos le pueden ayudar.

## PRICES

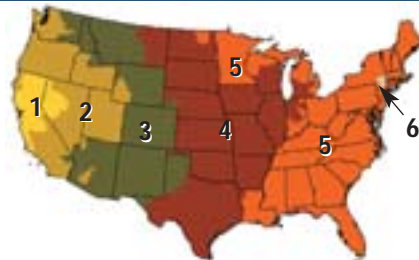
Prices are effective 04-11-05. In the unlikely event you find a lower price in a printed catalog or magazine, simply call us with the details at the time of purchase. We'll beat any price by 10% as long as it's above our cost. Prices and discounts are subject to change without notice. We are not responsible for any typographical errors in this catalog. Photos are representative; product appearance may vary.

## ONLINE INFORMATION

Get answers to frequently asked questions on the Jameco website at:

<http://www.Jameco.com>

## SHIPPING INFORMATION



Guaranteed Delivery Time for UPS Ground (Business Days)

- |        |        |        |
|--------|--------|--------|
| 1 day  | 2 days | 3 days |
| 4 days | 5 days | 6 days |

Orders received Mon.–Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth \$5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

### Options and Rates\*

Shipping delivery times are based on working days.

### Ground Service

Up to 6 working days for commercial address (up to 9 working days for residential). Guaranteed delivery times may vary depending on zip code. \$6.95 for 1st 2 lbs.; \$0.79 for each additional lb.

### 2-Day Air Service

\$13.95 for 1st 2 lbs.; \$1.69 for each additional lb.

### Next Day Air Service

- \$27.95 for AM delivery for 1st 2 lbs.; \$2.49 for each additional lb.
- \$19.95 for afternoon delivery for 1st 2 lbs.; \$2.29 for each additional lb.

### Priority Mail (USPS)

\$4.95 for 1st lb.; \$1.99 for each additional lb. Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day. Jameco reserves the right to rebill shipping surcharges for customer misaddressed packages.

\* The above rates apply to single box shipments through UPS that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs. or for other carriers.

### International Shipping & Handling

Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin.

## POLICIES

### Confirming Orders

Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

### No Minimum Order

A \$5.00 processing fee will be added to U.S. orders under \$25.00. This fee will be waived on web orders. All international orders below \$40.00 will incur a \$7.50 processing fee.



See previous page for Ordering Information

**Fax 1-800-237-6948 Order 24 hours/7 days a week!**

Jameco, 1355 Shoreway Road, Belmont, CA 94002 Call: 1-800-831-4242 International TEL: 1-650-592-8097 FAX: 1-650-592-2503

**1 Ordered By** (We will ship to this address unless you enter #2).  
**Customer No.** \_\_\_\_\_ **VIP No.** \_\_\_\_\_  
(see back cover)

\_\_\_\_\_  
 Company

\_\_\_\_\_  
 Name of Requisitioner Title

\_\_\_\_\_  
 Name of Purchasing Agent Title

\_\_\_\_\_  
 Street Address/PO Box Number

\_\_\_\_\_  
 City State Zip Code

Contact information (please provide all information and check method preferred)

( ) \_\_\_\_\_  
 Daytime phone number - Required for Credit Card Orders

( ) \_\_\_\_\_  
 Fax Number

\_\_\_\_\_  
 E-mail Address

☐ Please check this box if you prefer not to receive special offers via e-mail from Jameco.

**2 Ship To** (Only required if different from #1)

\_\_\_\_\_  
 Company

\_\_\_\_\_  
 Name Title

\_\_\_\_\_  
 Street Address/PO Box Number

\_\_\_\_\_  
 City State Zip Code

**3 Method of Payment**





☐ Prepaid (check enclosed) ☐ C.O.D. (\$7.50 service charge)

☐ Net 30 Days (Account must be previously established. Authorized P.O. # required.)

**PURCHASE ORDER NO.:** \_\_\_\_\_

☐ Credit Card

**Credit Card users only:**

Credit Card Number

Exp. Date: Month   Year     Name on card \_\_\_\_\_

\_\_\_\_\_  
 Billing Address Street/PO Box City/State/Zip

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	PAGE NO.	WEIGHT (LBS.)	UNIT PRICE	TOTAL
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

**5 Please Check Shipping Method Below**



- ☐ **Priority Mail (USPS)** .....\$4.95 for 1st lb., \$1.99 for each additional lb.
- ☐ **Ground** .....\$6.95 for 1st 2 lbs., \$0.79 for each additional lb.
- ☐ **2 Day Air Service** .....\$13.95 for 1st 2 lbs., \$1.69 for each additional lb.
- ☐ **Next Day Air Service (PM delivery)** .....\$19.95 for 1st 2 lbs., \$2.29 for each additional lb.
- ☐ **Next Day Air Service (AM delivery)** .....\$27.95 for 1st 2 lbs., \$2.49 for each additional lb.
- ☐ **Foreign Shipment via Air Parcel Post** .....Shipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available

Some restrictions may apply. See order information (previous page) for other shipping methods and conditions of sale. Shipping rate is based on a single package shipment.

\$5.00 processing fee on U.S. orders under \$25; \$7.50 for international orders under \$40 (fees waived for web orders)

Please Add Applicable Sales Tax (California Only)

Shipping (See Item 5)

C.O.D. (add \$7.50)

Credit Memo (please attach)

**TOTAL**

**6** **JAMECO** *thanks you for your order!*

FOR OFFICE USE ONLY

# \_\_\_\_\_ / \_\_\_\_\_

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## Internal Serial ATA, ATA-133 & Floppy Drive Cables



Flat ribbon cables block airflow within a computer system, but with round internal cables, it will improve internal airflow in any computer system.

For additional drive cables see page 89.

### Round Serial ATA cables

- Color: red
- 7-pin connector

**NEW**

Part No.	Description	Length	1	10	25
348710CH	90"	19.9" ...	\$4.69	\$4.11	\$3.91
348744CH	90"	39.4" ...	5.89	5.21	4.95
348728CH	180"	19.9" ...	4.69	4.11	3.91
348736CH	180"	39.4" ...	5.89	5.21	4.95

### Round ATA-133 cables

- Dual 40-pin ATA-133/IDE

Part No.	Color	Length	1	10	25
348752CH	Blue	18" ...	\$4.69	\$4.27	\$4.05
348761CH	Black	18" ...	4.69	4.27	4.05
348779CH	Blue	24" ...	5.45	5.12	4.87
348787CH	Black	24" ...	5.45	5.12	4.87

### Round Floppy Drive Cables

- 34-pin connectors

Part No.	Color	Length	1	10	25
348795CH	Blue	18" ...	\$6.59	\$6.59	\$5.77
348808CH	Black	18" ...	6.59	6.07	5.77
348816CH	Blue	24" ...	7.69	7.21	6.85

### Serial ATA Power Cable Extension

- 15-pin serial ATA power connector to 4-pin power connector

Part No.	Size	1	10	25
348841CH	6'L x 18 AWG	\$2.79	\$2.56	\$2.43

### IDE to Serial ATA Converter

- Converts 40-pin HDD connector to serial ATA connector

**Includes:** converter unit, power cables and serial ATA cable

Part No.	Description	1	10
348824CH	IDE to serial ATA	\$28.99	\$27.55



## Standard Vertical Mount Power Strips\*

- Voltage rating: 125V
- Cord length: 15 feet

**NEW**

Part No.	Product No.	Amps	No. of Receptacles	Plug Type	Dimensions (L"xD"xW")	Breaker	1	5
350133CH	EPS4015	15	6	5-15P Standard	40 x 0.8 x 1.3	No	\$110.19	\$104.69
350136CH	EPS6015	15	10	5-15P Standard	60 x 0.8 x 1.3	No	114.95	109.29
350139CH	EPS6015T	15	10	L5-15P Twistlock	60 x 1.2 x 2.0	No	128.25	121.85
350142CH	EPS6020	20	12	5-20P	60 x 1.2 x 2.0	No	129.19	122.75
350145CH	EPS6020T	20	12	L5-20P Twistlock	60 x 1.2 x 2.0	No	140.59	133.59
350148CH	EPS4015I	15	6	5-15P Standard	40 x 0.8 x 1.3	No	112.09	106.49
350151CH	EPS6015I	15	10	5-15P Standard	60 x 0.8 x 1.3	No	116.85	110.99
350154CH	EPS6615	15	20	5-15P Standard	66 x 1.25 x 1.75	Yes	142.49	135.39
350157CH	EPS6615T	15	20	L5-15P Twistlock	66 x 1.25 x 1.75	Yes	151.99	144.39
350160CH	EPS6620	20	20	5-20P Standard	66 x 1.25 x 1.75	Yes	189.99	180.49
350163CH	EPS6620T	20	20	L5-20P Twistlock	66 x 1.25 x 1.75	Yes	199.49	189.55



## Standard 19" Rackmount Power Strips\*

- Voltage rating: 125V
- Cord length: 15 feet

**NEW**

Part No.	Product No.	Amps	No. of Receptacles	Plug Type	Dimensions (L"xD"xW")	Breaker	1	5
350166CH	EPS1620	20	6	5-20P Standard	1.75 x 5 x 19	No	\$109.25	\$103.79
350169CH	EPS1620T	20	6	L5-20P Twistlock	1.75 x 5 x 19	No	123.49	117.35
350172CH	EPS20RM	20	6	5-20P Standard	1.75 x 5 x 19	Yes	113.99	108.29
350175CH	EPS20RMS	20	6	5-20P Standard	1.75 x 5 x 19	Yes	156.75	148.89
350178CH	EPS20RMT	20	6	L5-20P Twistlock	1.75 x 5 x 19	Yes	128.25	121.85
350181CH	EPS15RXS	15	10	5-20P Standard	1.75 x 5 x 19	Yes	150.09	142.59
350184CH	EPS15RMS	15	6	5-20P Standard	1.75 x 5 x 19	Yes	108.29	102.89
350187CH	EPS15RDS	15	8	5-20P Standard	1.75 x 5 x 19	Yes	163.39	155.25



## Full Depth Sliding and Fixed Shelves\*

### 4-point mounting

- 19" rack mountable

- Black

**NEW**

### Fixed Shelf

Part No.	Product No.	Description	Type	Depth	1	5
350097CH	ES1919	Medium Duty, 100lb. capacity	Vented	19.25"	\$48.45	\$45.99
350100CH	ES1924	Medium Duty, 100lb. capacity	Vented	24.00"	53.19	50.55
350103CH	ES1928	Medium Duty, 100lb. capacity	Vented	28.00"	57.95	55.05
350106CH	HDES1919	Heavy Duty, 400lb. capacity	Vented	19.25"	90.25	85.75
350109CH	HDES1924	Heavy Duty, 400lb. capacity	Vented	24.00"	113.99	108.29
350112CH	HDES1928	Heavy Duty, 400lb. capacity	Vented	28.00"	128.25	121.85

### Roll-Out Shelf

Part No.	Product No.	Description	Type	Depth	1	5
350115CH	SS1919	Medium Duty, 75lb. capacity	Vented	19.25"	\$128.25	\$121.85
350118CH	SS1924	Medium Duty, 75lb. capacity	Vented	24.00"	142.49	135.39
350121CH	SS1928	Medium Duty, 75lb. capacity	Vented	28.00"	170.99	162.45
350124CH	HDSS1919	Heavy Duty, 150lb. capacity	Vented	19.25"	142.49	135.39
350127CH	HDSS1924	Heavy Duty, 150lb. capacity	Vented	24.00"	156.75	148.89
350130CH	HDSS1928	Heavy Duty, 150lb. capacity	Vented	28.00"	187.15	177.79

### Rack Mountable Exhaust Fan

Part No.	Product No.	Voltage	CFM	Size	1	5
350211CH	WCF110	115V	110	6.77"Dia x 1.5"D	\$93.09	\$88.45



## Floor Attachments and Casters\*

**NEW**

Part No.	Product No.	Description	1	5
350067CH	ANCHORKT	Anchor kit for vertical rack mount enclosures, set of 4, black	\$35.15	\$33.39
350070CH	ANTIPTKM	Anti-tip plate for vertical rack mount enclosures, black	39.89	37.89
350073CH	CST1M	Swivel caster, black, supports 270 lbs.	12.35	11.75
350076CH	CST1KT	Swivel caster kit, set of 4, black, supports 1080 lbs.	47.49	45.13



\*To minimize shipping costs, all APW products ship direct from the manufacturer. Additionally, Jameco can offer the special shipping rate of 10% of total APW product sales for all APW products.



For Additional Rack Mount Accessories see pages 190-191



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## Wi-Fi Application Development Kit

Rabbit Semiconductor's™ Wi-Fi Application Kit provides all of the tools necessary to design and test communications from a Rabbit-based device to a Wi-Fi enabled device like a PC Laptop. The libraries and sample programs enable a Wi-Fi card to send and receive data to/from an RCM3100 RabbitCore™ module. The RCM can also send/receive email from any PC or device with a compatible Wi-Fi card. Includes Dynamic C® software with royalty-free TCP/IP stack.



Part No.	Description	Price
321681CH	Wi-Fi Application Kit .....	\$568.95

*For additional Rabbit Semiconductor products see pages 13-15.*

## Low-Cost, High-Powered Motherboard

This GIGA-BYTE® motherboard is a great platform for compact computers or embedded systems. Its price may be low, but for features, format and functionality, it can't be beat. Six USB 2.0/1.1 compliant ports and three PCI 2.2 compliant slots pack a lot of expandability into its tight micro ATX form factor. Supports a socket 478 Intel® Pentium 4 with HT technology, 533MHz Front Side Bus and two DDR DIMM sockets expandable to 2GB. With the on-board audio, LAN, and sound card, this motherboard provides the latest technology at an awesome price.



Part No.	Description	Price
345033CH	Motherboard (GA-8I845GVM-RZ) .....	\$76.35

*For additional GIGA-BYTE® motherboards see page 192.*

## Kingston Compact Flash



These type-1 removable, compact cards are ideal storage solutions for storing more pictures with your digital camera, listening to more music with your MP3 player, and increasing the productivity of your PDA, palmtop, or handheld PC.

Part No.	Description	Price
344962CH	128MB .....	\$18.99
344971CH	256MB .....	\$31.69
344989CH	512MB .....	\$53.55

*For card readers see page 199.*

## Wireless Weatherproof Color Camera

Keep your perimeter secure with this all-weather, indoor/outdoor motion-sensing camera. Passive IR technology activates the camera for recording and reviewing efficiency.



And because its wireless, you can locate the camera where you need it most, with no cabling hassles.

Part No.	Description	Price
319871CH	Camera .....	\$236.55

*For complete details see page 207.*

## Ultra-Bright White LED



Brighten up your designs with our brightest LED! Featuring a standard 5mm size, 5,500mcd maximum rating, and 7500k color temperature which delivers a cool white color similar to a fluorescent, your applications are endless.

Use for illumination, emergency lights, nighttime security cameras, or as an attention-getting panel indicator.

Part No.	Description	Price
320531CH	Ultra Bright White LED.....	\$1.09

*For expanded line of LEDs see pages 55-59.*



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